

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

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*Hellow, future Rpm!*

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*Doubt is definitely going to eat you this review season. I just want you to know that it is very VALID to feel that way. But always remember to go back to the reason why you are doing this.*

*May this reviewer help you pass the boards like it did to me and to many people that I know <3*

*We will be remembered ✨*

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### Perspectives on Nature and Nurture

- **Human Development** – focuses on the scientific study of the systematic processes of change and stability in people
- **Life-Span Development** – concept of human development as lifelong process, which can be studied scientifically
- **Life-Span Perspective** – views development as lifelong, multidimensional, multidirectional, plastic, multidisciplinary, and contextual, and as a process that involves growth, maintenance, and regulation of loss

#### Domains of Development

**Physical Development** – growth of the body and brain, sensory capacities, motor skills, and health

**Cognitive Development** – learning, attention, memory, language, thinking, reasoning, and creativity

**Psychosocial Development** – emotions, personality, and social relationships

- **Social Construction** – a concept or practice that is an invention of a particular culture or society
- **Stability-Change Issue** – which involves the degree to which early traits and characteristics persists through life or change
- **Continuity-Discontinuity** – focuses on the degree to which development involves either gradual, cumulative change (continuity) or distinct stages (discontinuity)

**Growth** – physical changes  
- quantitative

**Maturation** – transitional state that tells a person is fully functional  
- the unfolding of natural sequence of physical change and behavior patterns

**Development** – functional changes  
- it encompasses physical, mental, and social aspects

- progressive

**Learning** – how a person adapt to the environment

- **Behavioral Genetics** – scientific study of the extent to which genetic and environmental differences among people and animals are responsible for differences in their traits
- **Heritability** – proportion of all the variability in the trait within a large sample of people that can be linked to genetic differences among those individuals
- **Gregor Mendel** – studied the heredity in plants
- **Selective Breeding** – involves attempting to breed animals for a particular trait to determine whether the trait is heritable
  - Genes contribute to such attributes as activity level, emotionality, aggressiveness, and sex drive in rats mice, and chickens
- 1. **Twin Studies**
- 2. **Adoption Studies**
- 3. **Family Studies**
- **Concordance Rate** – the percentage of pairs of people studied in which if one member of a pair displays the trait, the other does too

**Reaction Range** – wide range of possibility that it might exhibit differently

**Canalized Range** – limited possible changes of changing (fixed)

- e.g., motor and language development

- Genes turn on and off in patterned ways throughout the lifespan (Epigenetics)
- **Gene-Environment Interaction** – the effects of genes depend on what kind of environment we experiences, and how we respond to the environment depends on what genes we gave
- In an instance, Intelligence is strongly influenced by heredity. However, it is also affected by parental stimulation, education, peer influence, and others
- **3 factors that contribute to individual differences in emotionality:**
  1. **Genes**
  2. **Shared Environmental Influences** – common experiences that work to make them similar (e.g., parenting style)
  3. **Nonshared Environmental Influences** – unique experiences to the individual – those who are not shared with the other members of the family (e.g., parental favoritism)

#### 3 kinds of Gene-Environment Correlations

**Passive Gene-Environment** – parent provide for their children is influenced partly by the parents' genotypes

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Evocative Gene-Environment** – child's genotype evokes certain kind of reactions from other people  
- Genetic makeup may affect the reactions of other people to a child and, hence, the kind of social environment that the child will experience

**Active Gene-Environment** – children's genotype influence the kinds of environment they seek

- **Heredity** – consists of inborn traits and characteristics provided by the child's parents (Nature)
- **Environment** – influences stems from the outside body, starting from conception throughout life (Nurture)
- **Individual Differences** – people differ in gender, height, weight, and body build; in health and energy level, etc.
- **Heredity** – consists of inborn traits provided by the parents
- **Context of Development:**
  1. **Family** – Nuclear and Extended Family
  2. **Socioeconomic Status** – combination of economic and social factors describing an individual or family, including income, education, and occupation
  3. **Culture** – society's or group's total way of life
    - **Ethnic Gloss** – overgeneralization that obscures or blurs variations
    - **Race** – identifiable biological category, is more accurately defined social construct
  4. **Gender**
  5. **History**
- **Normative Influences** – biological or environmental events that affect many or most people in a society in a similar ways and events that touch only certain individuals
- a. **Normative Age-Graded Influences**
- b. **Normative History-Graded Influences**
  - **Historical Generation** – group of people who experience the event at a formative time in their lives
  - **Age Cohort** – group of people born at about the same time
- **Nonnormative** – unusual events that have major impact on individual lives because they disturb the expected sequence of the life cycle
- **Imprinting** – instinctively follow the first moving object they see
- **Critical Period** – specific time when a given event, or its absence, has a specific impact on development
- **Sensitive Periods** – when developing person is especially responsive to certain kind of experience
- **Plasticity** – modifiability of performance

- **Theory** – set of logically related concepts or statements that seek to describe and explain development and to predict the kinds of behavior that might occur under certain conditions
- **Hypothesis** – explanations or predications that can be tested by further research
- **John Locke** – Tabula Rasa
- **Jean Jacques Rousseau** – children are born “noble savages” who develop according to their own positive natural tendencies if not corrupted by society
- **Mechanistic Model** – people are like machines that react to environmental input (reactive)
- **Organismic Model** – people as active, growing organisms that set their own development in motion; initiate events, and do not just react (active)
- **Continuous** – gradual and incremental
- **Discontinuous** – abrupt or uneven
- **Quantitative Change** – change in number or amount, such as height, weight, or vocabulary size
- **Qualitative Change** – emergence of new phenomena that could not be easily predicted on the basis of the past basic functioning
- **Evolutionary Psychology** – emphasized the importance of adaptation, reproduction, and “survival of the fittest” in shaping behavior
- **Nativist Perspective** – genes
- **Empiricist Perspective** – environment
- **Noam Chomsky** – all children acquire language in the same way

### Research Methods in Developmental Psychology and Ethics

#### Ethics

- **APA General Principles:**

General Principles	
<b>A. Beneficence and Nonmaleficence</b>	Take care to do no harm; minimize harm
<b>B. Fidelity and Responsibility</b>	Establish relationships of trusts, upholding professional standards of conduct, cooperate with other professionals if needed to serve the best interests of the client, and strive to contribute their professional time, compensated or not.
<b>C. Integrity</b>	Promote accuracy, honesty, and truthfulness

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

<b>D. Justice</b>	Fairness and justice to all person to access and benefit from the contributions of psychology
<b>E. Respect for People's Rights and Dignity</b>	Respect the dignity and worth of all people by exercising their rights to privacy, confidentiality, and self-determination

○ **PAP General Principles:**

<b>General Principles</b>	
<b>I. Respect for Dignity of Persons and Peoples</b>	<ul style="list-style-type: none"> <li>- Respect for all human beings, diversity, culture, beliefs</li> <li>- free and informed consent</li> <li>- privacy, fairness, and justice</li> </ul>
<b>II. Competent Caring for the Well-being of Persons and Peoples</b>	<ul style="list-style-type: none"> <li>- working for their benefit and do no harm</li> </ul>
<b>III. Integrity</b>	<ul style="list-style-type: none"> <li>- honesty, truthfulness, open and accurate communication</li> <li>- appropriate professional boundaries, multiple relationships, and conflicts of interest</li> </ul>
<b>IV. Professional and Scientific Responsibilities to Society</b>	<ul style="list-style-type: none"> <li>- contributing knowledge about human behavior</li> <li>- conducting affairs within society with highest ethical standards</li> </ul>

- Must provide accurate information and obtain approval prior to conducting the research
- Informed consent is required, which include:
  - ✓ Purpose of the research
  - ✓ Duration and procedures
  - ✓ Right to decline and withdraw
  - ✓ Consequences of declining or withdrawing
  - ✓ Potential risks, discomfort, or adverse effects
  - ✓ Benefits
  - ✓ Limits of confidentiality
  - ✓ Incentives for participation
  - ✓ Researcher's contact information
- Researchers who study vulnerable population should obtain informed consent both from the individual and guardian

- Seek individual's assent, provide an explanation, consider their best interest, and obtain permission from their guardians
  - Must appropriately document written or oral consent, permission or assent
- Permission for recording images or vices are needed unless the research consists of solely naturalistic observations in public places, or research designed includes deception
  - Consent must be obtained during debriefing
- Dispense or Omitting Informed consent only when:
  1. Research would not create distress or harm
    - Study of normal educational practices conducted in an educational settings
    - Anonymous questionnaires, naturalistic observation, archival research
    - Confidentiality is protected
  2. Permitted by law
- Avoid offering excessive incentives for research participation that could coerce participation
- DO not conduct study that involves deception unless they have justified the use of deceptive techniques in the study
  - Must be discussed as early as possible and not during the conclusion of data collection
- They must give opportunity to the participants about the nature, results, and conclusions of the research and make sure that there are no misconceptions about the research
- Must ensure the safety and minimize the discomfort, infection, illness, and pain of animal subjects
  - If so, procedures must be justified and be as minimal as possible
  - During termination, they must do it rapidly and minimize the pain
- Must no present portions of another's work or data as their own
  - Must take responsibility and credit, including authorship credit, only for work they have actually performed or to which they have substantially contributed
  - Faculty advisors discuss publication credit with students as early as possible
- After publishing, they should not withhold data from other competent professionals who intends to reanalyze the data
  - Shared data must be used only for the declared purpose
- Researchers who study cultural influences on development or racial, ethnic, and socioeconomic differences in development must work hard to keep

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

their own cultural values from biasing their perceptions of other groups

- **Ethnocentrism:** one's group is superior than the other groups
- Do not conduct studies that involves deception unless deceptive techniques are justified
  - If ever, deception must be explained as early as feasible during the conclusion of the participation and participants have the right to withdraw if they want to do so

### Basic Research Designs

**Descriptive** – aims to observe and record behavior

**Case Study** – study of a certain individual or group

- Useful in rare cases
- Offers useful, in-depth information
- Can explore sources of behavior, test treatments, and suggest directions for further research
- Cannot be easily generalized to other population
- Cannot make strong causal statements
- low external validity

**Ethnographic Studies** – seek to describe the pattern of relationships, customs, beliefs, technology, arts, and traditions that make up a society's way of life

- Case study of the culture
- Open to observer bias
- Help overcome cultural biases in theory and research
- Debunks the logic of western developed theories can be universally applied

**Correlational Study** – determine whether a correlation exist between variables, phenomena that change or vary among people or can be varied for purposes of research

- Study of the relationship between one variable and another without manipulation
- No random assignment
- Lack of control over extraneous variables
- Cannot establish causation
- Used to study many important issues that cannot be studies experimentally for ethical reasons
- Can study multiple influences operating in natural settings
- high external validity

**Experiment** – controlled procedure which the experiment manipulated variables to learn how one affects another

- Establish cause-and-effect
- Permit replication
- Manipulation
- Could encounter ethical issues
- Can be artificial

- high internal validity

**Quasi-Experiment** – natural experiment; compares people who have been accidentally assigned to separate groups by circumstances of life

- Actually, a correlational study

### Differentiating Cross-Sectional and Longitudinal Studies

#### Developmental Research Designs

##### Cross-Sectional

- children of different ages are assessed at ONE point of time
- more economical
- no cases of attrition (dropping out of the study) or repeated testing (practice effect)
- individual differences and trajectories may be obscured
- results can be affected by differing experiences of people born at different times

##### Longitudinal

- study the SAME GROUP or PERSON more than once, or even years apart
- can track individual patterns of continuity and change
- time-consuming and expensive
- repeated testing could result to practice effect
- attrition could be a problem
- turnover of research personnel, loss of funding, or the development of new measures or methodologies

##### Sequential

- data are collected on successive cross-sectional or longitudinal samples
- track people of different ages over time
- allows researchers to separate age-related change from cohort effects and provides more complete picture of development
- drawbacks: time, effort and complexity
- requires large number of participants and collection and analysis of huge amounts of data over a period of years
- *Cohort Effects:* important because they can powerfully affect the dependent measures in a study ostensibly concerned with age

### Developmental Theories (25)

#### Psychosexual Theory by Freud (3)

- humans were born with a series of innate, biologically based drives such as hunger, sex, and aggression early experiences shaped later functioning
- people are driven by motives and emotional conflicts of which they are largely unaware that they are shaped by their earliest experiences with the family



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- viewed newborn as “seething cauldron”, an inherently selfish creature driven by **Instincts** (inborn biological forces that motivate behavior)
- strongly believed in **unconscious motivation** – the power of instincts and other inner forces to influence our behavior without our awareness
- biological instincts provide unconscious motivation for actions
- selfish and aggressive = negative view of human nature
- Id, Ego, Superego
- 1. **Id** – pleasure principle, impulsive, irrational, selfish, seeks immediate gratification
- 2. **Ego** – reality principle, rational, finds realistic way to gratify instincts
  - Emerge during infancy when psychic energy is diverted from the id to energize cognitive processes
- 3. **Superego** – morality principle, individual’s internalized moral standards
  - develops from the ego as 3-6 years old internalize the moral standards and values of their parents
- Healthy Personality = balance of the id, ego, superego
- Psychological problems arise when the individual’s supply of psychic energy is unevenly distributed among the id, ego, and superego
- **Fixation** – arrest in development that can show up in adult personality; libido remains tied to an earlier stage of development
  - *Oral Fixation*: may grow up to become nail-biters or smokers
  - *Anal Fixation*: may be obsessively clean, rigidly tied to schedules and routines, or defiantly messy

**Oral**- Mouth

- experience anxiety and the need to defend against it if denied oral gratification by not being fed on demand or being weaned too early

- Oral Fixation manifested in adults: alcoholic, smoking, overeating, Pica, nail biting, thumb sucking

**Anal**- anus

- toilet training era

- Anal-Retentive: perfectionist, orderly, tidy

- Anal-Expulsive: lack of self-control, messy, careless

**Phallic**- genitals

- youngsters develop an incestuous desire for the parent of the other sex and must defend against it

- **Oedipus Complex**: loves his mother, fears that his father will retaliate by castrating him, and resolves the conflicts through identification with his father

- **Electra Complex**: a girl having desire with her father, seeing her mother as a rival

- **Castration Anxiety**: son believes his father knows about his desire for his mother and fears that his father will castrate him

- **Penis Envy**: a girl wants a penis as she desires her father

**Latency**

- sexual urges sublimated into sports and hobbies

**Genitals**- genitals

- physical sexual urges reawaken repressed needs

- direct sexual feelings towards others lead to sexual gratification

- may have difficulty accepting their new sexuality, therefore, reexperiencing conflict towards their parents and distance themselves to defend against anxiety-producing feelings

○ personality formed from unconscious childhood conflicts between the inborn urges of the id and the requirements of civilized life

○ **Defense Mechanisms** – ego adapts unconscious coping devices

**Repression** – unacceptable or unpleasant impulses are pushed back into the unconscious

- a woman who experienced sexual harassment cannot recall what happened to her

**Regression** – behaving as if they were at an earlier stage of development

- your father throws a tantrum when he was left alone at home

**Displacement** – the expression of an unwanted feeling or mere thought is redirected from a more threatening, powerful person to a weaker one

- an employee shouted at his child after being scolded by his boss

**Rationalization** – people distort reality in order to justify something that has happened

- a swimming athlete who lost her competition took her loss as something she expected anyways, and she did not want the trophy

**Denial** – people refuse to accept or acknowledge an anxiety-producing piece of information

- a widow never accepted that her husband died in an accident

**Projection** – people attribute unwanted impulses and feelings to someone else

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- A woman fat-shamed another woman because she is insecure about her body

**Sublimation** – people divert unwanted impulses into socially approved thoughts, feelings, or behaviors

- An angry man jogged instead to cool down his anger

**Reaction-Formation** – unconscious impulses are expressed as their opposite in consciousness

- A mother who unconsciously resent her child, acts lovingly consciously

○ stage-oriented

○ reactive

### Psychosocial Theory by Erikson

Period	Crisis	Virtue
Infancy	Trust Vs. Mistrust	Hope
Toddlerhood (Early Childhood)	Autonomy vs. Shame and Doubt	Will
Early Childhood (Play Age)	Initiative vs. Guilt	Purpose
Middle and late Childhood (School Age)	Industry vs. Inferiority	Competence
Adolescence	Identity vs. Identity Confusion	Fidelity
Young Adulthood	Intimacy vs. Isolation	Love
Middle Adulthood	Generativity vs. Stagnation	Care
Late Adulthood	Integrity vs. Despair	Wisdom

○ emphasized the influence of society on the developing personality

○ *Crisis*: major psychosocial challenge that is particularly important at that time and will remain an issue to some degree throughout the rest of life

○ each stage requires balancing positive and negative tendency

○ successful resolution of each crisis puts the person in a particularly good position to address the next crisis, a process that occurs iteratively across the life span

○ social and cultural influences mattered

○ *Social Clock*: conventional, culturally preferred timing of important life events

○ development is a lifelong process

○ stage-oriented

○ active

### Cognitive Development by Piaget

○ viewed intelligence as a process that helps an organism adapt to its environment

○ children are not born with innate ideas of reality

○ **Constructivism** – children actively construct new understandings of the world based on their experiences

○ development as the product of children's attempts to understand and act upon their world

○ begins with an inborn ability to adapt to the environment

○ Cognitive Growth occurs through 3 related processes: Organization, Adaptation, and Equilibration

**Organization** – tendency to create categories

- *Schemes*: ways of organizing information about the world that govern the way the child thinks and behaves in a particular situation

**Adaptation** – how children handle new information in light of what they already know

- *Assimilation*: incorporating it into existing cognitive structures

- *Accommodation*: adjusting one's cognitive structures to fit the new info

**Equilibration** – children want what they understand of the world to match what they observe around them

Their understanding = what they observe

○ provided rough benchmarks for what to expect of children at various ages and has helped educators design curricula appropriate to varying levels of development

○ underestimated Children and overestimated adults (not all people develop formal operations)

○ stage-oriented

○ active

### Sensorimotor

○ The first stage of Jean Piaget's cognitive development is **Sensorimotor Stage**

○ Approx. from birth to 2 years old

○ **Circular Reactions** – an infant learns to reproduce events originally discovered by chance

○ **Schemes** – actions or mental representations that can be performed on objects

○ **Assimilation** – occurs when children use their existing schemes to deal with new information

○ **Accommodation** – occurs when children adjust their schemes to take new information and experiences into account

○ **Organization** – grouping of isolated behaviors and thoughts into higher-order system

○ **Disequilibrium** – cognitive conflict

○ Children constantly assimilate and accommodate as they seek equilibrium

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- **Equilibration** – children shift from one stage of thought to the next

Substages
<b>1. Use of Reflexes (Birth to 1 Month)</b> [ reflexes ]
Exercise their <u>inborn reflexes</u> and gain some control over them
Practice their reflexes and control them (e.g., sucking whenever they want to)
<b>2. Primary Circular Reactions (1-4 months)</b> [ pleasure ]
Repeat <u>pleasurable behaviors</u> that first occur by chance
Begin to <u>coordinate sensory information</u> and grasp objects
They turn towards the sounds
<b>3. Secondary Circular Reactions (4-8 months)</b> [ interesting results ]
Repeat actions that brings <u>interesting results</u>
Learns about <u>causality</u>
<b>4. Coordination of Secondary Schemes (8-12 months)</b> [ usage of previously learned info ]
<u>Coordinate previously learned schemes</u> and use previously learned behaviors to attain their goals
<u>Can anticipate events</u>
<b>5. Tertiary Circular Reactions (12-18 months)</b> [ exploration ]
<u>Purposefully vary their actions to see results</u>
Actively explore the world
<u>Trial and error</u> in solving problems
<b>6. Mental Combinations</b>
Can think about events and <u>anticipate consequences</u> without always resorting action
Can use <u>symbols</u> such as gestures and words, and can pretend
Transition to Pre-operational stage
Learns about numbers

- **Representational Ability** – the ability to mentally represent objects and actions in memory, largely through symbols such as words, numbers, and mental picture
- Infants develop the abilities to think and remember
- Visible Imitation that uses body parts that babies can see develops first followed by Invisible Imitation (involves with parts of the body that babies cannot see)
- Piaget believed that children under 18 months could not engage in **Deferred Imitation**
  - Reproduction of an observed behavior after the passage of time

- Children lacked the ability to retain mental representations
- Infants under the age of about 8 months act as if an object no longer exists once it is out of sight
- **Object Permanence** – the realization that something continues to exist when out of sight
- Until about 15 months, infants use their hands to explore pictures as if they were objects
- By 19 months, children are able to point at a picture of an object while saying its name, demonstrating an understanding that a picture is a symbol of something else
- **Dual Representation Hypothesis** – proposal that children under age of 3 have difficulty grasping spatial relationships because of the need to keep more than one mental representation in mind at the same time

### Pre-operational

- Jean Piaget's second stage of cognitive development
- Lasting from ages 2 to 7, characterized by the expansion in the use of symbolic thought
- Children begin to represent the world with words, images, and drawings
- Dominated by egocentrism and magical beliefs
- Does not yet perform **Operations** (which are reversible mental actions that allow children to do mentally what before they could do only physically)
- **Preoperational Thought** – beginning of the ability to reconstruct in thought what has been established in behavior
- Divided into **Symbolic Function** and **Intuitive Thought**

### 1. Symbolic Function – being able to think about something in the absence of sensory or motor cues

- Can use symbols, or mental representations such as words, numbers, or images to which a person has attached meaning
- *Deferred Imitation*: children imitate an action at some point after observing it
- *Pretend Play*: fantasy play, dramatic play, or imaginary play; children use an object to represent something else
- The most extensive use of symbolic function is language
- Occurs between ages of 2 and 4

### 2. Intuitive Thought – begin to use primitive reasoning and want to know the answers to all sorts of questions

- Occurs approx. 4-7 yrs of age
- Children also begin to be able to understand the symbols that describe physical spaces

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Piaget believed that children cannot yet reason logically about causality
- **Transduction** – they mentally link two events, especially events close in time, whether or not there is logically a causal relationship
- **Identities** – the concept that people and many things are basically the same even if they change in outward form, size, or appearance
- **Animism** – tendency to attribute life to objects that are not alive
- **Centration** – the tendency to focus on one aspect of a situation and neglect others
  - Children cannot **Decenter** (think about several aspects of a situation at one time)
  - Involves on focusing on one dimension while ignoring the other
  - *Irreversibility*: failure to understand that an action can go in two or more directions
- **Egocentrism** – young children center so much on their own point of view that they cannot take in another's
- **Conservation** – the fact that two things are equal remain so if their appearance is altered, as long as nothing is added or taken away
- **Theory of Mind** – the awareness of the broad range of human mental states – beliefs, intents, desires, dreams, and so forth – and the understanding that others have their own
  - Allows us to understand and predict the behavior of others and makes the social world understandable

### Concrete Operational

- At about 7 years of age, children enter the stage of **Concrete Operations** according to Jean Piaget
- Children can now think logically because they can take multiple aspects of situations into account
- However, their thinking is still limited to real situations in the here and now
- Better understanding of:
  - ✓ **Spatial concepts** – allows to interpret maps and navigate environment
  - ✓ **Causality** – makes judgement about cause and effects
  - ✓ **Categorization**
    - *Seriation*: arranging objects in a series according to one or more dimensions
    - *Transitive Inferences/Transitivity*: e.g.  $A < B < C$
    - *Class Inclusion*: ability to see the relationship between a whole and its parts, and to understand categories within a whole
- ✓ **Inductive and Deductive reasoning**

- *Inductive Reasoning*: involves making observations about particular members of a class of people, animals, objects, or events, and then drawing conclusions about the class as a whole {specific > general conclusion}
- *Deductive Reasoning*: starts with a general statement about a class and applies it to particular members of the class {general conclusions application}
- Piaget believed that children in the concrete operations stage only used inductive reasoning
- ✓ **Conservation**
  - *Principle of Identity*: still same object even tho it has different appearance
  - *Principle of Reversibility*: can picture what would happen if he tried to roll back the clay of snake
  - *Decenter*: ability to look at more than one aspect of the two objects at once
- ✓ **Numbers**

### Formal Operational

- Adolescents enter what Piaget called the highest level of cognitive development – **Formal Operations**
- Adolescents move away from their reliance on concrete, real-world stimuli, and develop the capacity for abstract thought
- Usually around 11 yrs old
- They can now use symbols to represent other symbols, hidden messages, imagine possibilities, create hypotheses
- **Hypothetical-Deductive Reasoning** – methodical, scientific approach to problem solving, and it characterizes formal operations thinking
  - Involves ability to develop, consider, and test hypotheses
  - Piaget attributed it to a combination of brain maturation and expanding environmental opportunities
- According to David Elkind, the new way of thinking of adolescents, the way they look at themselves and their world, is as unfamiliar to them as their reshaped bodies, and they sometimes feel just awkward in its use
- Adolescents can keep many alternatives in mind at the same time yet may lack effective strategies for choosing them
- **Self-Consciousness** – adolescents can think about thinking – their own and the other people's thoughts
- **Imaginary Audience** – a conceptualized “observer” who is concerned with a young person's thoughts and behavior as he or she is



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Adolescents often assume everyone is thinking about the same thing they are thinking about: themselves
- **Personal Fable** – belief that they are special, their experience is unique, and they are not subject to the rules that govern the rest of the world
  - Underlies much risky, self-destructive behavior
  - Brain immaturity biases adolescent toward risky decision making
- Adolescents also become more skilled in social perspective-taking, the ability to tailor their speech to another person's POV
- **Fuzzy-Trace Theory Dual-Process Model** – decision making is influenced by two cognitive systems: verbatim analytical and gist-intuitional, which operate in parallel

### Moral Development by Kohlberg

#### Level I: Preconventional Morality (3-7 yrs old)

##### Stage 1: Obedience and Punishment Orientation

The child/individual is good to AVOID PUNISHMENT because punishment equates, they must have done something wrong

“What will happen to me if I do this?”

##### Stage 2: Individualism and Exchange

Children recognize that there is not just one right view that is handed down by authorities. They conform to rules out of self-interest and consideration what others can do for them.

“You scratch my back, I’ll scratch yours.”

#### Level II: Conventional Morality (Morality of Conventional Role Conformity) (8-13 yrs old)

##### Stage 3: Good Interpersonal Relationship

The child is good in order to be seen as a good person by others. Approval of others is important.

e.g., Donating to the victims of the recent typhoon and posting it on social media so everyone knows they did something good.

##### Stage 4: Maintaining Social Order

The child becomes aware of the rules of the society, so judgement concern obeying the rules to uphold the law and avoid guilt. Law is law.

e.g., Crossing the pedestrian crossing or going on a full stop when the traffic light turned red.

#### Level III: Postconventional Morality (Morality of Autonomous Moral Principles) (14-older yrs old)

##### Stage 5: Social Contract and Individual Rights

Child becomes aware that while rules might exist for the betterment of everyone, there are times you have to bend the law for self-interests. Goodness of all.

e.g., Some lawyers study the law so in case they need it, they can find a loophole and they won’t be convicted. Some laws are unfair and unjust.

#### Stage 6: Universal Principles

People developed their own set of moral guidelines, which may or may not fit the law. The principles apply to everyone. They do what they think is right regardless of legal restrictions or opinion of others. Whatever other people would say.

e.g., LGBTQIA++ community are still being discriminated and just tolerated by the society, but certain someone thinks that they deserve better. Thus, they do everything to recognize the rights of the people of the minority.

- Kohlberg placed too much emphasis on moral thought and not enough for moral behaviors
- **Cosmic Stage** – people consider the effect of their actions not only on other people but on the universe as a whole
- Just because a person is capable of moral reasoning does not necessarily mean the person actually engages in moral reasoning
- Kohlberg’s System is biased against non-western cultures
- Only 20% or 1/5 of adults reach Level III of Morality
- Very sexist and biased against women (males tend to focus on logic and rules) according to Gilligan
- **Carol Gilligan** – women prioritize an “ethics of care” as their sense of morality evolves along with their sense of self
  - care and empathy

### Piaget’s Moral Reasoning

- **Moral Reasoning** – the application of principles of logic to moral issues in order to decide which actions are right or wrong, just or unfair

**Heteronomous Morality (Moral Realism)** – children think of justice and rules as unchangeable properties of the world, removed from the control of people

- 4-7 years old
- consider the consequences, not the intentions
- “law is law”
- *Immanent Justice*: concept that if a rule is broken, punishment will happen immediately

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- from 7-10 years old, children are in transition showing some features of the first stage of moral reasoning and some stages of the second

**Autonomous Morality (Moral Relativism)** – becomes aware with the rules and laws created by people, and in judging an action, they consider the intentions as well as the consequences

- 10 years and older

- products of cooperative agreements

- **Exosystem:** family composition, place of residence, or parents' employment, and larger events
  - Incorporates other formal and informal social structures, which do not themselves contain the child but indirectly influence them as these social structures affect one of the microsystem
  - Child is not involved and are external to their experience but nonetheless affect them anyway
- **Macrosystem:** overarching cultural patterns such as dominant beliefs, ideologies, and economic and political systems
  - How cultural elements affect a child's development
- **Chronosystem:** dimension of time
  - Consists of all environmental changes that occur over the lifetime that influence development
  - Including major life transitions and historical events
  - Non-normative events
- active

### Sociocultural Theory by Vygotsky

- cognitive development is shaped by the sociocultural context in which it occurs and grows out of children's interactions with the member of the culture
- cognitive growth as collaborative process
- people learn through social interaction
- placed emphasis on Language
- adults or more advanced peers must help direct and organize a child's learning before the child can master and internalize it
- **Zone of Proximal Development (ZPD):** the gap between what they are already able to do by themselves and what they can accomplish with assistance
- **Scaffolding:** supportive assistance with a task that parents, teachers, or others give a child
- Allow testers to offer hints to children who were having trouble answering a question, thereby focusing on that child's potential learning
- active

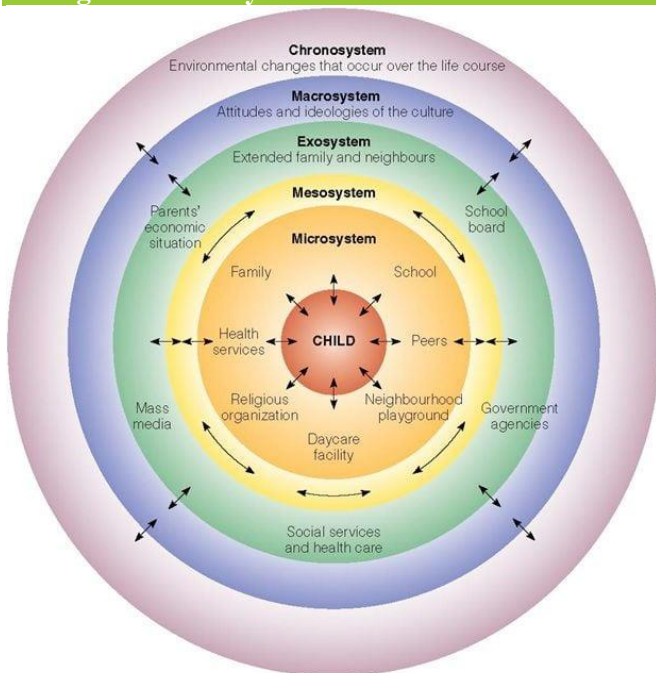
### Attachment by Ainsworth and Mahler

#### Ainsworth – Attachment Theory

- **Attachment** – reciprocal, enduring emotional tie between an infant and a caregiver, each of whom contributes to the quality of the relationship
- **Strange Situation** – by Mary Ainsworth; designed to assess attachment patterns between infant and adult

**Secure Attachment** – flexible, resilient

### Ecological Model by Bronfenbrenner



- child is not seen as just an outcome of development; the child is an active shaper of development
- to understand development, we must see the child within the context of multiple environments surrounding
- **Microsystem:** everyday environment; interactions with family, friends, etc.
  - have direct contact with the child
  - other people can influence the child and their environment and can also change the beliefs and actions of other people
  - very personal and crucial for fostering and supporting the child's development
- **Mesosystem:** linkages between home and school or between the family or peer groups (events that links the microsystems)
  - Interaction between child microsystems

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Secure attachment in early development becomes a foundation for psychological development later  
 - grow up as secured adults, can speak about attachment relationships with feeling but will also be thoughtful and reflective

: balances dependency and exploration, balances emotion and thought  
 - Parenting Style: Sensitive and Responsive  
 - low avoidance, low anxiety

**Avoidant (Insecure) Attachment** – outwardly unaffected by a caregiver leaving or returning  
 - Not distressed if caregiver leaves, do not reestablish contact when they return  
 - grow up as dismissing adults, attachment is devalued and dismissed by these adults with concomitant emphasis on though separated from emotions  
 - Parenting Style: Inconsistent, often unresponsive  
 - low anxiety, high avoidance

**Ambivalent (Resistant) Attachment** – generally anxious even before the caregiver leaves  
 - Cling to the caregiver then push them away when comforted  
 - grow up as enmeshed adults (pre-occupied), cannot turn their attention away from attachment, provide contradictory, rapidly alternating views of their attachment relationships accompanied by a gush of vivid memories  
 - Parenting Style: rejecting-unresponsive or intrusive-overly stimulating (inconsistent)  
 - low avoidance, high anxiety

**Disorganized-Disoriented Attachment** – lack a cohesive strategy to deal with the stress of the strange situation; they show contradictory, repetitive, or misdirected behaviors; confused and afraid  
 - Strong patterns of avoidance and resistance or display certain specified behaviors such as extreme fearfulness  
 - have psychopathological tendencies  
 - Parenting Style: frightened and frightening  
 - high avoidance, high anxiety

- Children who were classified as securely attached were more likely to have better relationships with peers and teachers in later childhood than those classified as insecure
- According to Bowlby, attachment styles resulted from repeated interactions with a caregiver
- **Stranger Anxiety** – wariness of a person she does not know
- **Separation Protest** – crying when caregiver leaves
- Babies react negatively to strangers by 8 or 9 months

- **Mutual Regulation** – the ability of both infant and caregiver to respond appropriately and sensitively to each other's mental and emotional states
- **Social Referencing** – seeking emotional information to guide behavior

#### Five Stages of Attachment Development

**Stage 1 (birth to 3 months):** Infants uses sucking, rooting, grasping, smiling, etc. to maintain closeness with caregivers

**Stage 2 (3 to 6 months):** more responsive to familiar figures than to strangers (responsive to mama onle)

**Stage 3 (6 to 9 months):** infants seeks physical proximity and contact with objects of attachment (finding mama)

**Stage 4 (9 to 12 months):** Infants form internal mental representation of object of attachment, including expectations about caregiver's typical responses to signals of distress (forming mental rep of objects of attachment)

**Stage 5 (12 months and older):** child uses variety of behaviors to influence the behavior of the objects of attachment in ways that will satisfy needs for safety and closeness (papansin era)

#### Bowlby – Attachment Theory

- **Attachment Behavior System** – a complex set of reflexes and signaling behaviors that bring about caregiving responses from adults
  - When the child is frightened or separated from the mother, the attachment system is activated and the child will seek proximity or physical closeness to the mother
  - The child is motivated to attain a sense of security, a subjective experience of safety and well-being
  - When the child feels secure, the attachment system is deactivated and the exploratory system is turned on
  - Attachment is a primary drive
- **Principle of Monotropy** – need to form attachment to one significant person
- **Internal Working Model of Attachment** – through repeated attachment experiences, the child develops expectations about the availability and responsiveness of the mother
- **Separation Anxiety** – distress when a familiar caregiver leaves her

**Protest** – upon the disappearance of the caregiver, the infant will cry, and will resist soothing from others

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Despair** – when the separation is prolonged, the infant becomes quiet, sad, passive, and apathetic

**Detachment** – infants become emotionally detached from other people

### Mahler – Separation-Individuation Theory

- **Psychological Birth** – focused on independence, how the child grows entirely dependent being to one who is relatively independent, both physically and psychologically
- 1-3 years old
- Successful completion of the developmental stages in first few years of life results in separation and individuation
- **Separation** – internal process of mental separation from the mother
- **Individuation** – developing self-concept
- the child's developing capacity to represent the mother, allows his/her independence from the mother
- Children exist in a symbiotic phase until they reach about 6 months of age
- They are unaware of their surroundings and others and only are cognizant of themselves as one with their mothers
- As the child matures, perception of his or her mother begins to evolve and the child internalizes the images of her
- Disruptions in normal developmental trajectory could lead to maladaptive behavior

#### Normal Autistic Phase (0-1 month)

- first weeks of life and shows little social engagement
- infant is focused on himself/herself
- uninterested in external stimuli
- Primary Goal: achieve a state of equilibrium, while lacking the understanding that the satisfaction needs may come from an external source
- as if they are inside their own egg shell

#### Normal Symbiotic Phase (1-5 month)

- first 6 months of life, occurs when the child gains awareness of caregivers but has no sense of individuality
- acknowledges the mother's existence as the main source of need-satisfaction
- egg extends to include the mother

#### Separation-Individuation (5-24 months)

- 4 or 5 months
- child develop a sense of self, separated from the mother

- In separation, the infant develops an understanding of boundaries of the self

- Individuation marks the development of a sense of self

1. *Differentiation*: occurs when the child first gains awareness that he or she is separate from the mother (5-10 months)
  - hatching
2. *Practicing*: occurs when child becomes toddler, gaining motor skills that enable the child to explore the world independently from his or her caregivers (10-16/18 months)
  - hastens the physical development and separation anxiety decreases
3. *Rapprochement*: “backing off” from separation, the child becomes anxious about separation from his mother and regains closeness (18-24 months)
4. *Object Constancy*: development of an internalized mental model of the mother, which unconsciously accompanies and supports the child even when they are physically separated (24+ months)

### Identity Formation by Marcia

- James Marcia distinguished four categories that differ according to the presence or absence of crisis and commitment
- **Crisis** – period of conscious decision making
- **Commitment** – personal investment in an occupation or ideology
- Represent the status of identity development at a particular time, and they may change in any direction as young people continue to develop

#### 4 types of Identity status

**Identity Achievement**: crisis leading to commitment

**Foreclosure**: commitment without crisis

- Result of exploring choices but accepting someone else's plans for her life
- Uncritically accepted others' opinions

**Moratorium**: crisis with no commitment yet

- Actively grappling with his identity and trying to decide the path he wants his life to take
- Exploration

**Identity Diffusion**: no commitment, no crisis

- Not seriously considered options and has avoided commitments

### Learning Theories based on Behaviorism and Social Learning

- **Behaviorism** – observed behavior as a predictable response to experience



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- reacting to conditions or aspects of their environment that find pleasing, painful, or threatening

### Classical Conditioning by Pavlov

- **Classical Conditioning:** response to a stimulus is evoked after repeated association with a stimulus that normally elicits response
- Watson's "Little Albert Experiment"

### Operant Conditioning by Skinner

- **Operant Conditioning:** consequences of "operating" on the environment; reinforcements and punishments
- **Reinforcement:** increasing the likelihood that the behavior will be repeated
- **Punishment:** decreasing the likelihood of repetition
- reinforcement is most effective when it immediately follows a behavior
- **Extinguished:** behavior returns to its original level when a response is no longer reinforced

### Social Learning Theory by Bandura

- *Reciprocal Determinism:* behaviorist sees the environment as the chief impetus for development and Bandura suggested that the impetus for development is bidirectional
- Behaviorism = stimulus > response
- Social Cognitive Theory = stimulus > response > stimulus
- *Observational Learning:* people learn appropriate social behavior chiefly by observing and imitating models – that is, by watching other people (usually whose behavior is perceived as valued in their culture)
- *Social Cognitive Theory:* cognitive processes are at work as people observe models, learn chunks of behavior, and mentally put the chunks together into complex new behavior patterns
- *Self-Efficacy:* confidence in one's ability

#### Sources of Self-Efficacy

Mastery of Tasks

Social Modeling

Social Persuasion

Physical and Emotional States

### Experiential Learning Theory by Kolb

- "learning by doing"
- Focuses on the best way to learn things is by actually having experiences
- Learning is the process whereby knowledge is created through the transformation of experience

**Concrete Experience:** new experience or situation, or a reinterpretation of existing experience in the light of new concepts

- emphasizes personal involvement with people in everyday situations
- learner has a new experience and interpret a previous experience in a new way

"i am a girl but i think i like girls too..."

**Reflective Observation:** reflects on the new experience in the light of their existing knowledge of particular importance are any inconsistencies between experience and understanding

- people understand ideas and situations from different points of view
- rely on patience, objectivity, and careful judgment but would not necessarily take any action
- reflects on the new experience

"the thing is, guys don't make my heart flutter. but, ugh, girls... they are so amazing..."

**Abstract Conceptualization:** reflection gives rise to a new idea, or a modification of an existing abstract concept (the person has learned from their experience)

- using theories, logic and ideas, rather than feelings, to understand problems or situations
- adapts their thinking or constructs new ideas based on experience and reflection

"the internet says i am homosexual because i like someone with the same gender as i am. i am a lesbian, i am a girl who is attracted to a fellow girl,"

**Active Experimentation:** newly created or modified concepts give rise to experimentation; applying their ideas to the world around them

- learner would take a practical approach and be concerned with what really works, as opposed to simply watch the situation
- applies new ideas to real world

"i tried to kissed a girl and i never felt this feeling before. i'd love to do that again with her,"

#### ○ 4 Basic Learning Styles:

**Diverging:** Concrete experience and Reflective observation

- tend to perform better in situations that call for generation of ideas
- prefer groups, listening with an open mind and receiving personalized feedback

"i like girls more than boys. they are so gorgeous and amazing. am i feeling right?"

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Assimilation:** Abstract Conceptualization and Reflective Observation

- best at understanding wide range of information and putting it into concise, logical form
- interested in ideas and abstract concepts
- prefer reading, lectures, and exploring analytical models

“so technically, i am an homosexual being. i like girls, so i am lesbian. i don’t feel like a girl so i am transgender, then?”

**Converging:** Abstract Conceptualization and Active Experimentation

- best at finding practical uses for ideas and theories
- prefer to deal with technical tasks and problems rather than with social issues
- prefer to experiment with new ideas, simulations, and lab experiments

“if i kiss this girl, would i like it? if i sleep with her, would it be different unlike sleeping with a guy?”

**Accommodating:** Active Experimentation and Concrete Experience

- enjoy carrying out plans and involving themselves in new and challenging experiences
- prefers to do field work, and test out different approaches to completing a project

“i came out to my parents today and introduced my girlfriend. i slept with her for the first on my birthday. it was amazing. but i wonder what would it feel like to sleep with a guy?”

### Evolutionary Theory by Wilson

- draws findings of anthropology, ecology, genetics, ethology, and evolutionary psychology to explain the adaptive, or survival, value of behavior for an individual or species
- evolutionary explanation of animal behavior could be applied to the study of human behavior
- human nature and culture are product of genetic evolution
- influenced by Charles Darwin’s theory, whereas the organisms vary and individual differences can be inherited
- some organisms, because of their particular characteristics, will survive and hence reproduce at higher rates than others
- **Natural Selection:** the differential survival and reproduction of different variants of members of a species and is the tool the natural world uses to shape evolutionary processes

- **Ethology:** study of the adaptive behaviors of animal species in natural contexts
- **Evolutionary Psychology:** apply Darwinian principles to human behavior
- **Law of Natural Selection** as the principle of survival of the fittest was proposed by Herbert Spencer
- active and reactive

### Social Role Theory

- **Social Role Theory** – traces the process of socialization and personality development through the person’s participation in increasingly diverse and complex social roles
- Individual demonstrates an extension of the self
- Differ in 4 dimensions:
  - a. Number of roles
  - b. Intensity of involvement
  - c. Time demands
  - d. Specificity of structure

### Developmental Principles

**Development is lifelong.** Each period is affected by what happened before and will affect what is to come.

**Development is Multidimensional.** Development is affected by multiple interacting dimensions such as biological, psychological, and social dimensions.

**Development is Multidirectional.** As people gain in one area, they may lose some aspects as well.

**Developmental Science is Multidisciplinary.** Psychologists, neuroscientists, and medical researchers all shares the same interest in unlocking the mysteries of development.

**Relative Influences of Biology and Culture shift over the life span (Contextual).** Biological Abilities weaken with age, but cultural supports could help compensate with the loss.

**Development Involves changing resource allocations (involves Growth, Maintenance, and regulation of loss).** Resources may be used for growth, for maintenance or recovery, or for dealing with loss when maintenance and recovery is not possible. In an instance, during childhood, all resources are used for growth and nurture. During Midlife, resources are used for maintenance and preparation for loss.

**Development shows plasticity.** Many abilities can be improved with training and practice.

**Development is influenced by historical and cultural context.** Each person develops with multiple contexts.

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

### Developmental Issues and Tasks (30)

#### Critical Issues during Prenatal Development

Chromosomal Abnormalities		
Name	Description	Treatment
<b>Down Syndrome (Trisomy 21)</b>	Extra copy of <u>chromosome 21</u>	Surgery, SPED
<b>Klinefelter Syndrome</b>	<u>Extra X Chromosome (XXY)</u>	Hormone Therapy
<b>Fragile X Syndrome</b>	<u>Abnormality in X chromosome</u> causes ID	SPED, Speech Therapy
<b>Turner Syndrome (Monosomy X)</b>	<u>Missing X chromosome</u> for females	Hormone Therapy
<b>XXY Syndrome (Jacob's Syndrome)</b>	<u>Extra Y chromosome</u>	No treatment
<b>Edward's Syndrome (Trisomy 18)</b>	Extra copy of <u>chromosome 18</u>	
<b>Patau's Syndrome (Trisomy 13)</b>	Extra copy of <u>chromosome 13</u>	
Gene-Linked Abnormalities		
<b>Cystic Fibrosis</b>	<u>Overproduction of mucus</u> in the lungs and digestive tract	Physical Therapy
<b>Diabetes</b>	Does not <u>produce enough insulin</u>	Insulin
<b>Hemophilia</b>	Delayed <u>blood clotting</u>	Blood transfusions
<b>Huntington's</b>	CNS deteriorates producing <u>problem in muscles and mental decline</u>	
<b>Phenylketonuria</b>	<u>Build up of Phenylalanine</u> in the body	Special Diet
<b>Sickle-Cell Anemia</b>	<u>Limits body oxygen supply</u>	Penicillin, Antibiotics, Pain Reliever
<b>Spina Bifida</b>	<u>Incompletely closed spinal canal</u>	Surgery
<b>Tay-Sachs Disease</b>	Accumulation of <u>lipids in the NS</u>	Medication, Special Diet

<b>Anencephaly</b>	<u>Absence of brain tissue</u>	No treatment
<b>Polycystic Kidney Disease</b>	<u>Enlarged Kidneys</u>	Kidney Transplant
<b>Alpha antitrypsin Deficiency</b>	Cirrhosis of the liver in <u>early infancy</u>	No treatment
<b>Alpha Thalassemia</b>	Severe Anemia; nearly all die soon <u>after birth</u>	Frequent Blood Transfusion
<b>Beta Thalassemia (Cooley's Anemia)</b>	Severe Anemia; fatal in <u>adolescence or Young adulthood</u>	Blood Transfusions
<b>Duchenne Muscular Dystrophy</b>	Males with <u>muscle weakness, minor mental retardation</u>	No treatment

- **Anoxia** – oxygen shortage
  - Could be umbilical cord becomes pinched or tangled at birth
  - Could also be the position during birth (breech position)
  - Can initially cause poor reflexes, seizures, heart rate irregularities, and breathing difficulties
  - Can also lead so **Cerebral Palsy** – difficulty controlling muscle movements
  - Increases the risk of learning or intellectual disabilities and speech difficulties
- **Low Birth Weight Infants** – weigh less than 5 pounds and 8 ounces at birth
  - **Very Low birth Weight** – less than 3 pounds 4 ounces
  - **Extremely Low Birth** – less than 2 pounds
- **Pre-term Infants** – born three weeks or more before pregnancy reach full term (before the completion of 37 weeks of gestation)
- **Small for Date Infants (Small for Gestational Age Infants)** – those whose birth weight is below normal when the length of pregnancy is considered
- **Progestin** – might help in reducing preterm birth
- **Extremely Preterm** – born less than 28 weeks gestation
- **Very Preterm** – less than 33 weeks
- **Kangaroo Care** – involves skin-to-skin contact in which the baby, wearing only diaper, is held upright

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

against the parent's bare chest to help stabilize the preterm's heartbeat, temp, and breathing

- One condition commonly faced by preterm babies is **Respiratory Distress Syndrome** wherein there is a lack of surfactant (lung-coating substance) that keeps air sacs from collapsing
- **Postmature Babies** – tend to be long and this because they have kept growing in the womb but have had an insufficient blood supply toward the end of gestation
- **Sudden Infant Death Syndrome** – crib death; sudden death of an infant under age 1 which cause of death remains unexplained

### Critical Issues related to physical, cognitive, socio-emotional development during Prenatal Development

- **Miscarriages** – short-lived pregnancies
  - **Spontaneous Abortion (Miscarriage)** – expulsion from the uterus of an embryo that is unable to survive outside the womb
  - Less than 20 weeks
- **Stillbirth** – miscarriage occurred after 20 weeks of gestation (approx. 5 months)
- Males are more likely to be spontaneously aborted or to be stillborn
- **Teratogen** – environmental agent that can interfere with normal prenatal development
  - Effects are worst during the critical period, when the organs are developing rapidly
  - The greater the level of exposure and the longer the exposure to teratogen, the more likely it is that serious damage will occur
  - Susceptibility to harm is influenced by unborn child's and mother's genetic makeup
  - The effects of teratogen depend on the quality of both the prenatal and the postnatal environment
- **Teratology** – field of study that investigates the causes of birth defects
- **Critical Period** – a time during which the developing organism is specially sensitive to environmental influences, positive or negative
- Women of normal weight are less likely to have birth complications
- Overweight women have risk of having longer deliveries, need more health care services, gestational diabetes, cesarean delivery, birth defects etc.

- Omega-E, DHA, Folic Acid for the development of nervous system
- Results to fetal growth restriction and low birth weight (5 pounds, 8 ounces = 2.5kg)
- Moderate exercise is recommended to reduce back pain, risks for gestational diabetes and etc.
- **Spina Bifida** – neural tube fails to close, part of the spinal cord is not fully encased in the protective covering of the spinal column
  - Neurological problems
- **Anencephaly** – lethal defect in which main portion of the brain above the brain stem failed to develop
- Neural tube defects occur 25-29 days after conception and more common due to deficient in folic acid
- **Thalidomide** – used to relieve morning sickness
  - caused stunted limbs, facial deformities, and defective organs
  - treatment for AIDS, tuberculosis, and cancer
- **Tobacco** – higher risks of miscarriage, prematurity, low birth weight, cleft lips, and cleft palates
  - Restricts blood flow to the fetus which reduces the levels of growth factors, oxygen, and nutrients that reach the fetus
  - CNS impairment
  - Infants are more irritable and score lower on standard assessments of behavioral functioning
  - Higher risks of respiratory infections and breathing difficulties
  - Higher risk for SIDS
  - Mild cognitive difficulties and to conduct and behavior problems
  - Maternal smoking was identified to be the most important factor for low-birth weight babies
  - Tobacco also increases the risks of miscarriage, growth retardation, stillbirth, SIDS, etc.
- **Alcohol** – disrupt hormone functions of the placenta
  - Disrupts the normal process of neuronal migration, leading to several outcomes depending on the severity of the effects
  - **Fetal Alcohol Syndrome** – characterized by a combination of retarded growth, face and body malformations, and disorders of the central nervous system
  - FAS children are smaller and lighter than normal and their physical growth lags behind
  - High risks in CNS damage
  - Children who were exposed prenatally with alcohol but do not have FAS experience **Fetal**



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Alcohol Effects or Alcohol-Related Neurodevelopmental Disorder**

- **Cocaine** – causes spontaneous abortion and premature detachment of the placenta
  - Contributes to fetal malnourishment, retarded growth, and low birth weight
  - Deficits on several measures of information-processing and sensory motor skills
  - Opioids are associated with small babies, fetal death, preterm labor, and aspiration of meconium
  - Babies born with drug-addicted mothers tend to experience withdrawal once they are born and no longer receive drugs
  - **Neonate Abstinence Syndrome** – sleep disturbance, tremors, difficulty regulating the body, irritability, crying etc.
  - Caffeine has slightly increased risk for miscarriage, stillbirth, and low birth weight babies
- Rubella almost certain to cause deafness and heart defects to babies
- **Toxoplasmosis** – caused by parasite in the bodies of cattle, sheep, and pigs, and in the intestinal tracts of cats that causes fetal brain damage, severely impaired eyesight, seizures, miscarriage, etc.
- Diabetic mothers are most likely to have babies that have heart and neural tube defects
- Stress and anxiety have been associated with more irritable and active temperament in newborns
- Chronic stress can result in preterm delivery
- Depression may cause premature birth or developmental delays
- Chance of miscarriage or stillbirth rises with maternal age
- Adolescent Mothers tend to have premature or underweight babies
- Includes air pollution, radiation, chemicals
- Fetal exposure to low level of environmental toxins may result to asthma, allergies, lupus
- X-Rays could triple the risk of having full-term, low-birth weight babies
- Exposure to lead, marijuana, tobacco, radiation, pesticides, etc. may result in abnormal or poor quality sperm
- Babies who fathers had diagnostic x-rays within the year prior to conception or had a high lead exposure at work tends to have low birth weight and slowed fetal growth

- Exposure to Mercury could cause blindness
- Older fathers may be significant source of birth defects due to damaged or deteriorated sperm such as dwarfism, schizophrenia, bipolar disorder, ASD
- **Prenatal cell-free DNA Scans** – fetal DNA is extracted from the mother's blood and tested for early detection of genetic problems
- **Infertility** – not being able to get pregnant even after a year of trying
- Another set of drugs that are harmful for pregnant women: Antibiotics, certain Barbiturates, Opiates, Acutane

**Developmental Issues during Childhood, Adolescence, and Adulthood****Infancy and Toddlerhood**

- For infants, delayed speech due to lack of interaction with the caregiver and delayed cognition due to lack of stimulation
- According to Erik Erikson, as babies, our first challenge involves forming basic sense of **Trust versus Mistrust**
- Ideally, babies develop a balance between trust and mistrust
- If trust predominates, as it should, children develop **Hope** and the belief that they can fulfill their needs and obtain their desires

Approximate Age	Crisis	Virtue Developed
<b>Infancy (0-18 months)</b>	Trust vs. Mistrust	<b>Hope</b>
<b>Toddler (18 months – 36 months)</b>	Autonomy vs. Shame/Doubt	<b>Will</b>

- **Maladaptive Tendency for Infancy: Sensory Maladjustment** – overly trusting and gullible, unrealistic, spoiled
- **Malignant Tendency: Withdrawal** – never trust anyone, paranoid, neurotic, depressive
- **Significant Person: Mother**
- **Maladaptive Tendency for Toddler: Impulsiveness** – shameless willfulness that leads to jump into things without proper consideration, reckless, inconsiderate
- **Malignant Tendency: Compulsiveness** – perfectionism, rule follower, anal, constrained
- **Significant person: Parents**
- Successful in this stage = hopeful child
- Failed = withdrawn child

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- **Self-Concept** – our image of ourselves; it describes what we know and feel about ourselves and guides our actions
- By at least 3 months, infants pay attention to their mirror image
- **Pretend Play** – an early indication of the ability to understand other's mental states and their own
- Usage of person pronouns (me, mine) usually at 20-24 months
- **Socialization** – process by which children develop habits, skills, values, and motives that make them responsible and productive members of the society
- Children obey societal or parental dictates because they believe them to be right and true
- The eventual goal is the development of conscience

**Situational Compliance** – extra assistance provided by their parents' reminder and prompts to complete the task

- only in the presence of the parents

**Committed Compliance** – they were committed to following request and could do so without their parents direct intervention

- even without the parents

**Receptive Cooperation** – eager willingness to cooperate harmoniously with a parent, not only in disciplinary actions, but in variety of daily interactions

- (Freud) In Freud's second psychosexual development stage, Anal Stage, it stated how the development of children on this stage is focused on controlling bowel movements.
  - Fixations of this stage leads to **Anal-Retentive** and **Anal-Expulsive** Individuals
  - *Anal Retentive*: obsessed with orderliness and tidiness due to strict potty training
  - *Anal-Expulsive*: very messy and disorganized adults due to lax potty training

### Early childhood

- Preschool children can do-and want to do-more and more. At the same time, they are learning that some of the things they want to do meet social approval, whereas others do not

Approximate Age	Crisis	Virtue Developed
Play Age (3-5 yrs)	Initiative versus Guilt	Purpose

- **Purpose** – the courage to envision and pursue goals without being unduly inhibited by guilt or fear of punishment

- **Maladaptive Tendency: Ruthlessness** – don't care who they step in just to achieve their goals
- **Malignant Tendency: Inhibition** – too much guilt to do anything so nothing would happen
- **Significant Persons: Family**
- **Theory of Sexual Selection** – the selection of sexual partners is a response to differing reproductive pressures early men and women confronted in the study for survival
- **Identification** – adoption of characteristics, beliefs, attitudes, values, and behaviors of the parent of the same sex
- According to Kohlberg, Children actively search for cues about gender in their social world
- **Gender Constancy** – a child's realization that his or her gender will always be the same

**Gender Identity** – awareness of one's own gender and that of others, which typically occurs ages 2 and 3

**Gender Stability** – awareness that gender does not change

**Gender Constancy** – the realization that a girl remains a girl even if she has a short haircut and plays with trucks, typically occurs between ages 3 and 7

- **Gender-Schema Theory** – it views children as actively extracting knowledge about gender from their environment before engaging in gender-typed behavior
  - Place more emphasis on the influence of culture
  - Children match their behavior to their culture's view of what boys and girls are supposed to be and do
- According to Walter Mischel, children acquire gender roles by imitating models and being rewarded for gender-appropriate behavior
- Other issues: Sleeping problems, bedwetting, malnutrition/obesity, food allergies, oral health, accidents
- Other cognitive issues: centration, egocentrism, conservation, usage of media, parenting styles, relationships with other family members, aggression, prosocial behavior, fearfulness

### Middle and Late Childhood

- **Representational Systems**: broad, inclusive self-concepts that integrate various aspects of the self
- She can compare her real self with her ideal self and can judge how well she measures up to social standards in comparison with others

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- According to Erikson, in the event that children are unable to obtain the praise of adults or peers in their lives, or lack motivation and self-esteem, they may develop a feeling of low self-worth, thus develop a sense of inferiority

Approximate Age	Crisis	Virtue Developed
School Age Age (5-13 yrs)	Industry vs. Inferiority	Competency

- Developing a sense of industry involves learning how to work hard to achieve goals
- **Maladaptive Tendency: Narrow Virtuosity** – children that aren't allowed to “be children” and push into one area of competence
- **Malignant Tendency: Inertia** – suffer from inferiority complexes
- **Significant Persons:** Neighborhood and School
- As children grow, they are more aware of their own and other people's feelings
- Children are typically aware of feeling shame and pride and a clearer idea of the difference between guilt and shame
- **Emotional Self-Regulation** – voluntary control of emotions, attention, and behavior
- Children tends to become more empathetic and more inclined to prosocial behaviors
- **Gender Stereotypes** – broad categories that reflect general impressions and beliefs about males and females
- **Coregulation** – children and parents share power
- The amount of autonomy parents provide affects how their children feel about them
- Children are more apt to follow their parents' wishes when they believe the parents are fair and concerned about the child's welfare
- Parents of school-age children tends to use inductive techniques as a form of discipline
- Children exposed to high levels of family conflict are more likely to show a variety of responses that can include internalizing or externalizing behaviors

**Internalizing behaviors** – anxiety, fear, depression-anger turned inward

**Externalizing behaviors** – aggression, fighting, disobedience, hostility

- If family conflict is constructive, it can help children see the need for rules and standards and learn what

issues are worth arguing about and what strategies can be effective

- The more satisfied a mother is with her employment status, the more effective she is likely to be a parent
- The poverty can harm children's development, high-quality parenting can buffer children from potential consequences of poverty
- Children tend to do better in families with two continuously married parents than in cohabiting, divorced, single-parent, or step-families
- Parent's relationship, the quality of their parenting, and their ability to create a favorable family atmosphere affect children's adjustment more than their marital status does
- Children whose parents later divorce show more anxiety, depression, or antisocial behavior prior to the divorce than those parents who stay married
- Children do better with joint custody
- Co-parenting has been consistently linked to positive child outcomes
- Most adopted children fall within the normal range of development
- Children adopted after the age 1 were more likely to show lower school achievement
- Having a warm and supportive sibling relationship is associated with better adjustment and better emotion regulation
- Sisters are higher in sibling intimacy than brothers or mixed-sex dyads
- Peer groups helps children learn how to adjust their needs and desires to those of others, when to yield, and when to stand firm
- Children can gauge their abilities and gain a clearer sense of self-efficacy
- **Prejudice** – unfavorable attitudes towards outsiders
- Children can be negatively affected by discrimination
- Girls are more likely to engage in cross-gender activities

**Positive Nomination** – asking children who they like to play with, they like the most, or who they think other kids like the most

**Negative Nomination** – opposite of positive nomination

- **Sociometric Popularity** – measures that is composed of positive nominations, negative nominations or no nominations

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Average children** – receive an average no of both positive and negative nominations

**Neglected Children** – infrequently nominated as bestie but not really disliked

**Rejected Children** – disliked by peers

**Controversial Children** – frequently nominated both bestie and most disliked

**Popular Children** – frequently nominated as bestie and rarely disliked by peers

- Unpopular children can make friends but they tend to have fewer friends and they prefer younger ones
- **Instrumental Aggression** – aimed at achieving an objective
  - Proactive (Cold Aggression)
  - View force and coercion as effective ways to get what they want
  - Very common in kids
- **Hostile Aggression** – intended to hurt another person
  - Reactive (hot aggression)
  - Direct Aggression
- **Hostile Attributional Bias** – quickly conclude, in ambiguous situations that others were acting with ill intent and are likely to strike out in retaliation or self-defense

### Adolescence

- **Identity** – coherent conception of the self, made up of goals, values, and beliefs to which the person is solidly committed
  - Forms as young people resolve three major issues: the choice of an occupation, the adoption of values to live by, and the development of a satisfying sexual identity

Approximate Age	Crisis	Virtue Developed
Adolescence (14-20 yrs)	Identity vs. Identity/Role Confusion	Fidelity

- Adolescence is a time-out period (*Psychosocial Moratorium*), which is the ideal for the development of identity, allowing young people the opportunity to search for commitments to which they could be faithful
- **Fidelity** – sustained loyalty, faith, or a sense of belonging to a loved one, friends or companions
  - Identification with a set of values, an ideology, a religion, a political movement, or an ethnic group

- Inability to develop fidelity may have an unstable sense of self, insecure, and fail to plan for themselves and the future
- A man is not capable of real intimacy until he has achieved a stable identity, whereas women define themselves through marriage and motherhood
- **Crisis** – a period of conscious decision-making
  - Process of grappling with what to believe and who to be (Erikson)
- **Commitment** – a personal investment in an occupation or ideology
- **Maladaptive Tendency: Fanaticism** – believes that his “ways” are the only ways
- **Malignant Tendency: Repudiation** – repudiate (reject) their membership in the world of adults and, even more, they repudiate their need for an identity
- **Sexual Identity** – seeing oneself as a sexual being, recognizing one’s sexual orientation, and forming romantic or sexual attachments
- **Sexual Orientation** – whether the person is attracted to person of other sex (Heterosexual), same sex (Bisexual), or of both sexes (Bisexual)
- Brains of gay men and straight women are more symmetrical, whereas lesbians and straight men, the right hemisphere is slightly larger
- **Transgender** – biological sex at birth and gender identity are not the same
- **Transsexual** – people who seek medical assistance to permanently transition to their preferred gender
- Two major concerns about adolescent sexual activity are the risks of contracting STIs and pregnancy
- **Juvenile Delinquency** – adolescent who breaks the law or engages in behavior considered as illegal
- Antisocial behaviors tends to run in families
- Individuals who have low arousal levels may be prone to antisocial behaviors as a form of sensation seeking to achieve arousal levels a normal person experiences
- An early onset type (beginning by age 11) tends to lead to chronic juvenile delinquency in adolescence
- Milder late onset type, tends to arise temporarily in adolescence
- Parents of children who become chronically antisocial may have failed to reinforce good behaviors in early childhood and may have been harsh or inconsistent with their discipline



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Young Adulthood**

- Emerging adulthood offers **Moratorium** – time out from developmental pressures and allow young people the freedom to experiment various roles and lifestyles
- Recentering** – name for the process that underlies the shift to an adult identity

**Stage 1: Beginning**

Individual is still embedded in the family of origin, but expectations for self-reliance and self-directedness begin to increase

**Stage 2: During**

Individual remains connected to but no longer embedded within the family of origin

**Stage 3: Usually by Age 30**

Marked independence from the family of origin and commitment to a career, a partner, and possibly children

- Moratorium** – self-conscious crisis that ideally leads to a resolution and identity achievement status
- Many young adults seem to do little active, conscious deliberation, instead of taking passive approach or taking the lead from the parents
- Positive parent-child relationships during early adolescence predict warmer and less conflicted relationships with both parents when children reach age 26
- The view that these young adults who “fail to launch” and do not move out of their parents’ homes are selfish slackers who refuse to grow up is largely inaccurate
- Normative-Stage Models** – theoretical approaches that hold that adults follow a basic sequence of age-related psychosocial changes

Approximate Age	Crisis	Virtue Developed
Young Adulthood (21-39 yrs)	Intimacy vs. Isolation	Love

- According to Erikson, if adults cannot make deep personal commitments to others, they risk becoming overly isolated and self-absorbed
- As young adults work to resolve conflicting demands for intimacy and competitiveness, they develop an ethical sense, which Erikson considered a marker of adulthood
- Love** – a mutual devotion between partners who have chosen to share their lives and have children

- Maladaptive Tendency: Promiscuity** – tendency to become intimate too freely, too easily (marupok)
- Malignant Tendency: Exclusion** – tendency to isolate oneself from everyone
- Timing-of-Events Model** – holds that the course of development depends on when certain events occur in people’s lives
- Normative Life Events (Normative Age-Graded Events)** – those typically happen at certain times of life
- Social Clock** – society’s norms for appropriate timing of life events
- Trait Models** – psychological models that focus on the measurement and examination of different traits
- McCrae’s Five-Factor Model** – Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism
- People’s personalities remain similar does not mean no change occurs

<b>O</b> penness • Imaginative or practical • Interested in variety or routine • Independent or conforming	<b>C</b> onscientiousness • Organized or disorganized • Careful or careless • Disciplined or impulsive	<b>E</b> xtraversion • Sociable or retiring • Fun-loving or somber • Affectionate or reserved	<b>A</b> greeableness • Softhearted or ruthless • Trusting or suspicious • Helpful or uncooperative	<b>N</b> euroticism (emotional stability) • Calm or anxious • Secure or insecure • Self-satisfied or self-pitying
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- Typological Approach** – seeks to complement and expand trait research by looking at personality functioning whole
- Ego-Resilient** – well-adjusted, self-confident, articulate, attentive, helpful, Cooperative, task-focused
- Overcontrolled** – shy, quiet, anxious, dependable, tend to keep thoughts to themselves and withdraw from conflict, subject to depression
- Undercontrolled** – active, energetic, impulsive, stubborn, and easily distracted

**Three Attachment Styles**

**Secure** – have positive views in relationships, find it easy to get close to others, and are not overly concerned about romantic relationships

**Avoidant** – hesitant about getting involved in romantic relationships and once they do, they distance themselves to their partners

**Anxious** – demand closeness, less trusting, more emotional, jealous, and possessive

**Middle Adulthood**

- 6 Emotional Stages of Retirement:**

**Pre-Retirement: Planning the retirement**

- Critical time for setting up for success in retirement

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Imagining ideal retirement, take stock for health, assess finances, building support network, decide when to retire

- begin to think seriously about the life they want for themselves in retirement and whether they are financially on track to achieve it

**Retirement** – makes the transition from full-time work to retirement they've planned

**Honeymoon Phase: Freedom**

- Enjoy newfound freedom and retirement

- positive phase when retirees get to enjoy the fruits of a lifetime of labor

- Can also be a time of anxiety and uncertainty because they feel purposeless

**Disenchantment Phase: What to do next?**

- Feel restless, aimless, and bored

- Feeling worn out because of aimlessly trying to fill time with anything

- Find clarity and do introspection work to connect with self and discover retirement purpose

- Have realistic expectations, be proactive, and set life goals

- they may experience some of the emotional downsides of retirements such as loneliness, disillusionment, and a feeling of uselessness

**Reorientation: The New You**

- Redefining yourself and finding new purpose in retirement

- Reassessing priorities

- Great opportunity for self-discovery

- people try to figure who they are and map their place in the world as a retiree

**Stability Phase: Retirement Routine**

- Growth and contentment with new identity in retirement, and finding equilibrium

- Settling into a new normal

- Accepted retirement identity and created a daily routine that works for them

▪ Associated with prosocial behaviors

- **Care** – widening commitment to take care of persons, products, and the ideas one has learned to take care for

Approximate Age	Crisis	Virtue Developed
Middle Adulthood (40-65 yrs)	Generativity vs. Stagnation	Care

- People who do not find generativity run the risk of becoming self-absorbed, self-indulgent, and stagnant
- **Stagnation** – disconnected from the communities because of their failure to contribute
- Women report higher generativity than men
- For men, having a child early is associated with greater generativity
- **Maladaptive Tendency: Overextension** – they no longer allow themselves to relax and rest
- **Malignant Tendency: Rejection** – no longer participating or contributing in the society
- According to Levinson, the transition to middle adulthood lasts about five years and requires the adult male to come to grips with the four major conflicts: (1) being young vs old; (2) being destructive versus being constructive; (3) being masculine vs. feminine; (4) being attached to others vs. separated from them
- Midlife as a crisis, arguing that middle-aged adults is suspended between past and the future, trying to cope with this gap that threatens life's continuity
- **Midlife Crisis** – changes in personality and lifestyle during middle forties
  - Many people realize that they will not be able to fulfill the dreams of their youth, or that fulfillment of their own mortality
  - People who do have crisis at midlife generally also have crises at other times in their lives as well
  - Manifestation of a neurotic personality rather than developmental phase
- **Turning Point** – psychological transition that involves significant change or transformation in the perceived meaning, purpose, or direction of a person's life
  - Triggered by major life events, normative changes, or a new understanding of past experience

- In middle adulthood, conscientiousness is the highest maybe due to result of work experiences
- However, unemployed ones will show decrease in agreeableness and conscientiousness
- Middle-aged men who remarry tend to become less neurotic, those who divorce decrease in extraversion
- **Generativity** – involved finding meaning through contributing to society and leaving a legacy for future generations
  - Parenting, teaching, mentorship, productivity, self-generation or self-development
  - "Maintenance of the work"

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- **Midlife Review** – involves recognizing the finiteness of life and can be a time of taking stock, discovering new insights about the self, and spurring midcourse corrections in the design and trajectory of one's life
- **Developmental Deadlines** – time constraints on
- **Ego Resiliency** – the ability to adapt flexibly and resourcefully to potential source of stress
- **Identity Process Theory (IPT)** – physical characteristics, cognitive abilities, and personality traits are incorporation into identity schemas (Susan Krauss Whitbourne)
  - *Assimilation*: interpretation of new information via existing cognitive structure
  - *Accommodation*: involves changing cognitive structures to more closely align with what is encountered
  - *Identity Assimilation*: involves holding onto a consistent sense of self in the face of new experiences that do not fit the current understanding of the self
  - *Identity Accommodation*: involves adjusting the identity schema to fit new experiences
  - *Identity Balance*: stable sense of self while adjusting their self-schemas to incorporate new information
- **Narrative Psychology** – views the development of self as a continuous process of constructing one's life story
- **Generativity Scripts** – feature redemption and associated with psychological well-being
- Increase in positive emotions through early adulthood to old age
- **Empty Nest** – occurs when the youngest child leaves home
- In a good marriage, departure of children generally increases marital satisfaction
- **Revolving Door Syndrome** or **Boomerang Phenomenon** – returning to parent's home, sometimes with their own families
- Prolonged Parenting may lead to intergenerational tension when it contradicts parent's normative expectations
  - Positive relationships with parents contribute to a strong sense of self and to emotional well-being at midlife
- *Filial Crisis*: adults learn to balance love and duty to their parents with autonomy in a two-way relationship
- *Sandwich Generation*: caught in squeeze between the competing needs of their own children and the emerging needs of their parents
- *Caregiver Burnout*: a physical, mental, and emotional exhaustion that can affect adults who care for aged relatives
- *Respite Care*: giving caregivers some time off
- Relationships with siblings who remain in contact can be central to psychological well-being in midlife
- Grandmothers have closer, warmer, more affectionate relationships with their grandchildren
- *Kinship Care*: grandparents that provides care but don't become foster parents or gain custody, have no legal status and few rights

#### Late Adulthood

**Young Old (60-75)**

**Old-Old (75-85)**

**Oldest Old (85 and older)**

**Octogenarian (80s)**

**Centenarian (Over 100 yrs old)**

- The optimistic view of oldies seems to help protect older adults against the long-term effects of serious health threats like stroke
- **Frail Elderly** – older adults who cannot care for themselves
- Most common chronic health conditions: Hypertension, Arthritis
- Identical twins are more similar in length of life than fraternal twins, and adults who parents and grandparents were long lived are also likely to live longer

#### Theories of Biological Aging

**Hayflick Limit** – cells simply lose their capacity to replicate themselves

- Telomeres become shorter as the cell divides
- cells can divide for no more than 50 times

**Programmed Senescence Theory** – aging also may be influenced by specific genes “switching off” after age-related losses occur (Epigenesis)

- age-related physical declines result from species-specific genes for aging
- prevents older, presumably less fit from becoming parents at an age when they are unlikely to be able to raise offspring to maturity

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Endocrine Theory** – biological clocks act through hormones to control the pace of aging

**Immunological Theory** – programmed decline in immune system functions leads to increased vulnerability to infectious disease and thus to aging and death

**Evolutionary Theory** – Aging is an evolved trait thus genes that promote reproduction are selected at higher rates than genes that extend lives

**Variable-Rate Theories** – aging is the results of random processes that vary from person to person (Error theories)

**Wear-and-Tear Theory** – cells and tissues have vital parts that wear out

**Free-Radical Theory** – Accumulated damage from oxygen radicals causes cells and eventually organs to stop functioning

**Rate-of-Living Theory** – the greater an organism's rate of metabolism, the shorter its life span

**Autoimmune Theory** – immune system becomes confused and attacks its own body cells

**Cross-Linking Theory** – occurs more often in cell proteins of older adults  
- undesirable chemical bonds form between proteins and fats which cannot assume the correct shape for proper function, leading to effects such as wrinkling of the skin and arterial rigidity

- For Erik Erikson, the crowning achievement of late adulthood is Ego Integrity or integrity of the self – need to evaluate and accept their lives so as to accept death

Approximate Age	Crisis	Virtue Developed
Old Age (65-older)	Ego Integrity vs. Despair	Wisdom

- **Wisdom** – informed and detached concern with life itself in the face of death itself
  - Accepting one has lived, without major regrets
- **Maladaptive Tendency: Presumption** – presumes ego integrity without actually facing the difficulties of old age
- **Malignant Tendency: Disdain** – contempt of life, one's own or anyone's
- **Reminiscence** – thinking about the past – necessary part of achieving ego integrity and thus an important aspect of old age and preparation for death
- **Life Review** – evaluative process in which elders make judgments about their past behaviors

**Activity Theory** – psychologically and physically healthiest response to old age is to maintain the greatest possible level of activity and involvement in greatest possible number of roles

– the more active older people are, the better they age

**Disengagement Theory** – aging has three aspects: shrinkage of life space, increased individuality, acceptance of these changes  
– normal part of aging involves gradual reduction in social involvement and greater preoccupation with the self

**Continuity Theory** – primary means by which elders adjust to aging is engaging in the same kinds of activities that interested and challenged them in their earlier years

– people's need to maintain connection between past and present is emphasized, and activity is viewed as important, not for its own sake but because it represents continuation of previous lifestyle

**Selective Optimization with Compensation** – involves developing abilities that allow for maximum gain as well as developing abilities that compensate for decline and could lead to loss  
- Older adults conserve resources by selecting meaningful goals, optimizing the resources they have to achieve it, and compensating for the losses by using resources in alternative ways to achieve their goals

- Stability declines in late adulthood
- Increases in agreeableness, self-confidence, warmth, emotional stability, and conscientiousness and declines in neuroticism, social vitality, and openness to experience
- Why do people show normative changes in personality characteristics? Some researchers argue that these processes are driven primarily by intrinsic genetic differences between people that unfold over time
- Personality traits influence behavior, and behavior influences health
- In general, older adults have fewer mental disorders and are happier and more satisfied with life than younger adults
- Happiness tends to be high in early adulthood, declines until people reach 50 years of age, and then tends to rise again until 85
- As people get older, they tend to seek out activities and people that give them emotional gratification
- They are also better at regulating emotions



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Dendritic loss at the neuronal level clearly contributes substantially to the general slowing of health, with arthritic changes in joints and loss of elasticity in the muscles
- There is a shift in sleep patterns in old age – they wake up more frequently in the night and decreased REM sleep
- They are more likely to go to bed early and wake up early
- Older adults may feel hungry all the time and may overeat
- The loss of stamina clearly arises in large part from changes in the cardiovascular system
- Gradual loss of the sense of balance, which is at least partly attributable to the effects of aging on white matter in the parts of the brain that control balance and motor function
- Older adults also tend to have more difficulty with switching attention
- **Sensory Memory** – brief storage of sensory information
- **Working Memory** – short-term storage of information being actively process
- Tasks that require only rehearsal, show a little decline
- Tasks that requires reorganization or elaboration show greater falloff
- **Episodic Memory** – linked to specific events; most likely to deteriorate with age
- **Semantic Memory** – consists of meanings, facts, and concepts accumulated over lifetime learning; little decline
- **Procedural Memory** – motor skills and habits that once learned; relatively unaffected by age
- Language problems are probably results of the problems accessing and retrieving information from the memory
- Dysfunction in frontal lobes and hippocampus may cause false memories
- Older adults seems to have difficulty encoding new episodic memories because of difficulties in forming and later recalling a coherent and cohesive episode
- Storage also deteriorate to the point retrieval becomes difficult
- Retirement is a single event but a dynamic adjustment process that is best conceptualized as a form of decision making
- Five broad categories of resources that help determine how well a person adjusts to retirement:
  1. Individual attributes such as health and financial status
  2. Pre-retirement job-related variables such as job stress
  3. Family-related variables such as marriage quality and dependents
  4. Retirement transition-related variables
  5. Postretirement activities
- Volunteering during retirement has been positively associated with good health and negatively associated with depression, functional limitations, and mortality
- **Aging In Place** – staying in their own home
- Group living arrangements for Older Adults
  - a. Retirement Hotel
  - b. Retirement Community
  - c. Shared Housing
  - d. ECHO (Elder Cottage Housing Opportunity) Housing
  - e. Congregate Housing
  - f. Assisted-Living Facility
  - g. Foster-Care Home
  - h. Continuing Care Retirement Community

#### Critical Issues concerning death and bereavement

- **Clinical Death** – few minutes after the heart stopped pumping
- **Brain Death** – a person no longer has reflexes or any response to vigorous external stimuli and no electrical activity in the brain
- **Social Death** – when other people treat a deceased person like a corpse
- **Hospice Care** – personal, patient- and family-centered, compassionate care for the terminally ill
- **Palliative Care** – includes relief of pain and suffering, controlling of symptoms, alleviation of stress, and attempts to maintain a satisfactory quality of life
- **Terminal Drop or Terminal Decline** – specifically to a widely observed decline in cognitive abilities shortly before death
- **Near-Death Experience** – often involving a sense of being out of the body or sucked into a tunnel and visions of bright lights or mystical encounters

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Linked to stimulation or damage of various brain areas, most notably in bilateral frontal and occipital areas
  - Generally experienced as positive as a result of the release of endorphins
  - **Grief** – emotional response that generally follows closely on the heels of death
  - **Bereavement** – response to the loss of some whom a person feels close
  - **Grief Work** – working out of psychological issues connected with grief often takes the following path:
    1. **Shock and Disbelief**
    2. **Preoccupation with the memory of the dead person**
    3. **Resolution**
  - **Recovery Pattern** – mourner goes high to low distress
  - **Delayed Grief** – moderate or elevated initial grief, and symptoms worsen over time
  - **Chronic Grief** – distressed for a long time
- |  |
|--|
| <b>Dual-Process Model (Stroebe &amp; Schut, 1999)</b>          |
| <b>Confrontation</b> – confront their loss and actively grieve |
| <b>Restoration</b> – focus on moving forward                   |
| <b>Multiple Variations (Bonano et al., 2011)</b>               |
| <b>Recovery</b> – high to low distress                         |
| <b>Delayed</b> – worsen over time                              |
| <b>Chronic</b> – remains distressed for a long time            |
| <b>Resilience</b> – low and gradually diminishing              |
- **Resilience** – the mourner shows a low and gradually diminishing level of grief in response to the death of a loved one
  - By age 4, children build a partial understanding of the biological nature of death
  - Pre-school aged children believe that death can be reversed by praying, magic, or wishful thinking
  - By the time the school starts (beginning of concrete operations), most children seem to understand both permanence and the universality of death
  - Young children who have had direct experience with the death of a family member are more likely to understand the permanence of death than those who had no such personal experience
  - Teenagers who attempt suicide believe that death is a pleasurable experience for most people who die
  - For adults, they think of it as painful and unpleasant
  - **Unique Invulnerability** – belief that bad things happen to others but not to themselves
- Adjusting to loss is more difficult if a child had a troubled relationship with the person who died
  - Children do not understand death, but they understand loss
  - Often, teens turn to peers for support
  - Young adults will find their entire world collapsing at once when they knew they are dying instead of dealing with other issues
  - Middle-Aged and Older adults are more prepared with death
  - **Terror Management Theory** – human's unique understanding of death, in concern with self-preservation needs and capacity for fear, results in common emotional and psychological responses when mortality, or thoughts of death are made salient
    - One common response to thoughts of death is to become more committed to a cultural worldview (religion)
    - High self-esteem should buffer people against anxiety and fear over death
    - High self-esteem = reduced anxiety regarding death
    - Seeking comfort from loved ones is a common response in human undergoing threat and is a regulatory strategy to reduce anxiety
  - **Brain Death** – neurological condition which states the person is brain dead when all electrical activity of the brain has ceased for a specific period of time
    - Higher portions of the brains dies sooner than lower parts which facilitates breathing and heartbeat
    - That is why your brain could be dead but you still have heartbeat for the mean time
  - **Suicide** – growing number of people consider a mature adult's deliberate choice of a time to end his or her life a rational decision and a right to be defended
  - **Euthanasia** – good death, intended to end suffering or to allow terminally ill person to die with dignity
    - **Passive** – involves withholding or discontinuing treatment that might extend the life of a terminally ill patient such as life support
    - **Active** – “mercy killing” involves action taken directly or deliberately to shorten life
  - **Advance Directive** – contains instructions for when and how to discontinue futile medical care

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Living will or a more formal legal document called a durable power of attorney
- **Durable Power of Attorney** – appoints another person if the maker of the document becomes incompetent to do so
- **Assisted Suicide** – physician or someone else helps a person bring about a self-inflicted death
- **Life Review** – a process of reminisce that enables a person to see the significance of his or her life
- **Denial (Positive Avoidance)** – person rejects evidence about diagnosis
- **Fighting Spirit** – person maintains an optimistic attitude and searches for more information about the diseases
- **Stoic Acceptance** – person acknowledges the diagnosis but makes no effort to seek any further information, or person ignores the diagnosis and carries on normal life as much as possible
- **Helplessness/Hopelessness** – sees herself as dying or gravely ill and as devoid of hope
- **Anxious Preoccupation** – responded to the diagnosis strongly and with persistent anxiety; they interpret the information pessimistically

#### Bowlby's Stages of Grief (with Sanders)

**Numbness (Shock)** – mourner experiences disbelief, confusion, restlessness, feelings of unreality, a sense of helplessness

**Yearning (Awareness)** – bereaved person tries to recover the lost person, may actively search or wander as if searching, may report that he sees the dead person, mourner feels full of anger, anxiety, guilt, fear, frustration, may sleep poorly and weep often

**Disorganization and Despair (Conservation/Withdrawal)** – acceptance of loss brings depression and despair or a sense of helplessness, accompanied by great fatigue and a desire to sleep all the time

**Reorganization (Healing and Renewal)** – individual takes control again, some forgetting occurs, and some sense of hope emerges

#### Four Distinct Patterns of Grieving

**Normal** – feels great distress immediately following the loss, with rapid recovery

**Chronic** – distress continues at a high level over several years

**Delayed** – feels little distress in the first few months, but high levels of distress some months or years later




**Absent** – person feels no notable level of distress either immediately or any later time

#### Expected Developmental Tasks during Childhood, Adolescence, and Adulthood

##### Infancy and Toddlerhood

- **Reflex Behavior** – automatic, innate response to stimulation which are controlled by the lower brain centers that govern involuntary processes
- **Primitive reflexes** – includes sucking, rooting, and the Moro reflex are related to instinctive needs for survival and protection or may support the early connection to the caregiver
- **Postural Reflexes** – reactions to changes in position or balance
- **Locomotor Reflex** – resemble voluntary movements that do not appear until months after the reflexes have disappeared
- Early Reflexes Disappear during the first 6-12 months

#### Early Human Reflexes

<b>Moro</b>	Extend legs, arms, and fingers, arches back, draws back head  (Swaddling is done to avoid Moro reflex)	
<b>Darwinian (Grasping)</b>  <b>1. Plantar</b> <b>2. Palmar</b>	Make strong first	
<b>Tonic Neck</b>	Fencer Position  (Hand-Eye Coordination)	

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

<b>Babkin</b>	Mouth opens, eyes close, neck flexes, head tilts forward	
<b>Babinski</b>	Toes fan out; foot twist in	
<b>Rooting</b>	Head turns, mouth opens, sucking begins	
<b>Walking</b>	Steplike motions	
<b>Swimming</b>	Swimming movements	

- At 4 months, infant's brain responds preferentially to speech
- Touch is the first sense to develop, the most mature sensory system for the first several months
  - Touch, Taste, Smell, Hearing, and Sight
- Sense of smell and taste begin to develop in the womb
- **Motor and Talking Development:**

**First Month**Infants can turn their head from side to sideGrasping ReflexStarts to coo and play with speech sounds**Second-Third Month**Babies can lift their headsCan grasp moderate sized things until they will be able to grasp one thing using right hand and transfer it to their left hand

Babies can now hold their head still to find out whether the object is moving

They can already match the voice to facesDistinguish female and male

Discriminate between faces of their own ethnic group and those of other groups

Size constancyInfants develop the ability to perceive that occluded objects are whole**Fourth Month**Babies can keep their heads erect while being held or supported in a sitting position

Can now roll-over, accidentally

Begin to reach objects

**Sixth Month**Babies cannot sit without supportCan start creeping or crawling

Could successfully reach for objects in the dark faster than they could in the light

They can now localize or detect sounds from their origins, recognizes sound patterns and phonemes**Seventh Month**Pincer Grasps could already manifest

Can start standing

Can now sit independentlyStart babbling**Eighth Month**Babies can assume sitting position without helpInfants can now learn to pull themselves up and hold on to a chair**Tenth Month**They can now stand aloneFirst word**Eleventh Month**Babies can let go and stand alone well

Single words

**Thirteenth Month**Toddlers can now pull a toy attached to a string and use their hands and legs to climb stairsUse a lot of social gestures**Eighteenth to Twenty-Fourth Month**Toddlers can now walk quickly, run, and balance on their feet in a squatting positionCan now talk in two words continuously learning new words everyday

- **Perceptual Constancy** – sensory stimulation is changing but perception of the physical world remains constant



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Allows infants to perceive that their world as stable
- *Size Constancy*: recognition that an object remains the same even though the retinal image of the object changes as you move toward or away from the object
- *Shape Constancy*: an object remains the same shape even though its orientation changes
- **APGAR Scale** – provide quick assessment of the newborns: *Appearance, Pulse, Grimace, Activity, Respiration*
  - 1 minute after being born, then after 5 minutes again
  - Scores of 0-3 at 10, 15, and 20 minutes after birth are increasingly associated with cerebral palsy or other neurological problems

9-10	Risk of developing ADHD is higher
7 or higher	Good condition
5-7	Needs to establish breathing
4 or below	Needs immediate lifesaving treatment

- **Bayley Scales of Infant and Toddler Development** – developmental test designed to assess children from 1 month to 3 ½ years
  - Cognitive, Language, Motor, Social-Emotional, and Adaptive Behavior
  - Accompanied by **Behavior Rating Scale** taken from the caregiver
- **Home Observation for Measurement of the Environment (HOME)** – trained observers interview the primary caregiver and rate on a yes-or-no checklist the intellectual stimulation and support observed in a child's home
  - Number of books and toys, parents involvement with the child, parental emotional and verbal responsiveness, acceptance of the child's behavior, organization of the environment, and opportunities for daily and varied stimulation
- **Early Intervention** – systematic process of planning and providing therapeutic and educational services for families that need help in meeting infants', toddlers', and pre-school children's developmental needs

### ○ **Sensorimotor Stage:**

Substages
<b>1. Use of Reflexes (Birth to 1 Month)</b>
Exercise their <u>inborn reflexes</u> and gain some control over them
Practice their reflexes and control them (e.g., sucking whenever they want to)
<b>2. Primary Circular Reactions (1-4 months)</b>
<u>Repeat pleasurable behaviors that first occur by chance</u>
Begin to <u>coordinate sensory information</u> and grasp objects
They turn towards the sounds
<b>3. Secondary Circular Reactions (4-8 months)</b>
Repeat actions that brings <u>interesting results</u>
Learns about causality
<b>4. Coordination of Secondary Schemes (8-12 months)</b>
<u>Coordinate previously learned schemes</u> and use previously learned behaviors to attain their goals
Can anticipate events
<b>5. Tertiary Circular Reactions (12-18 months)</b>
<u>Purposefully vary their actions to see results</u>
Actively <u>explore the world</u>
Trial and error in solving problems
<b>6. Mental Combinations</b>
Can think about events and <u>anticipate consequences without always resorting action</u>
Can use symbols such as gestures and words, and can pretend
Transition to Pre-operational stage
Learns about numbers

- **Schemes** – actions or mental representations that can be performed on objects
- **Assimilation** – occurs when children use their existing schemes to deal with new information
- **Accommodation** – occurs when children adjust their schemes to take new information and experiences into account
- **Organization** – grouping of isolated behaviors and thoughts into higher-order system
- **Disequilibrium** – cognitive conflict
- Children constantly assimilate and accommodate as they seek equilibrium
- **Equilibration** – children shift from one stage of thought to the next
- **Representational Ability** – the ability to mentally represent objects and actions in memory, largely

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- through symbols such as words, numbers, and mental picture
- Infants develop the abilities to think and remember
  - Visible Imitation that uses body parts that babies can see develops first followed by Invisible Imitation (involves with parts of the body that babies cannot see)
  - Piaget believed that children under 18 months could not engage in **Deferred Imitation**
    - Reproduction of an observed behavior after the passage of time
    - Children lacked the ability to retain mental representations
  - Infants under the age of about 8 months act as if an object no longer exists once it is out of sight
  - **Object Permanence** – the realization that something continues to exist when out of sight
  - Until about 15 months, infants use their hands to explore pictures as if they were objects
  - By 19 months, children are able to point at a picture of an object while saying its name, demonstrating an understanding that a picture is a symbol of something else
  - **Dual Representation Hypothesis** – proposal that children under age of 3 have difficulty grasping spatial relationships because of the need to keep more than one mental representation in mind at the same time
  - **Habituation** – a type of learning in which repeated or continuous exposure to a stimulus, reduces attention to that stimulus
    - Familiarity breeds loss of interest
  - **Dishabituation** – if a new sight or sound is presented, the baby's attention is generally captured once again, and the baby will reorient toward the interesting stimulus and once again sucking slows
  - **Visual Preference** – tendency to spend more time looking at one sight rather than another
  - **Visual Recognition Memory** – ability that depends on the capacity to form and refer to mental representations
  - Babies like to look at new things
  - Senses are unconnected at birth and are only gradually integrated through experience
  - **Cross-Modal Transfer** – the ability to use information gained from one sense to guide another
    - as when a person negotiates a dark room by feeling for the location of familiar objects
  - During the second half of the first year, the prefrontal cortex and associated circuitry develop the capacity of working memory (short-term storage of information the brain is actively processing)
  - Working memory may be responsible for the slow development of object permanence
  - Between 6-3 months, babies start cooing
  - By 6-10 months, they start babbling
  - Infants start using gestures at about 7-15 months
  - As early as 5 months, infants recognize their name
  - **Receptive Vocabulary** – words that the child understands
  - **Spoken Vocabulary** – words the child expresses/uses
  - **Overextension** – tendency to apply a word to objects that are inappropriate for the word's meaning by going beyond the set of referents an adult would use (e.g. “Dada” not only for her Dad but also to other male strangers)
  - **Underextension** – tendency to apply the word too narrowly; occurs when children fail to use a word to name a relevant event or object
  - Children between 18 to 24 months, speak in two-word utterances
  - **Telegraphic Speech** – the use of short and precise words without grammatical markers such as articles, etc. (“Momi give water”)
  - **Child-Directed Speech** – language spoken with a higher-than-normal pitch, slower tempo, and exaggerated intonation, with simple words and sentences
  - **Recasting** – rephrasing something the child has said that might lack appropriate morphology
  - **Expanding** – adding information to a child's incomplete sentence (“Mama water,” “You want me to give you water?”)
  - **Labeling** – name objects that children
  - Storybook reading especially benefits children
- | Four Patterns of Crying of Infants  |
|---|
| <b>Basic Hunger Cry</b> – <u>rhythmic pattern that usually consist of cry</u> , followed by a briefer silence |
| <b>Angry Cry</b> – <u>more excess air</u> is forced through vocal cords                                       |
| <b>Pain Cry</b> – sudden long, initial loud cry followed by <u>breath holding</u>                             |

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Frustration Cry** – higher pitch and a more monotonic vocalization is associated with autonomic system activity during stressful procedures in infants

- **Social Smiling** – newborn infants gaze and smile at their parents; smile that occurs in response to external stimulus (2 months)
- **Reflexive Smile** – a smile that does not occur in response to external stimuli and appear during the first month after birth
- **Anticipatory Smiling** – infants smile at an object then gaze at an adult while continuing to smile
- **Self-Conscious emotions** arise only after children have developed self-awareness
- **Altruistic Behavior** – acting out of concern with no expectation of reward
- **Mirror Neurons** – underlie empathy and altruism
- **Temperament** – An early-appearing, biologically based tendency to respond to the environment in predictable ways
  - Raw materials of personality

**Easy Children** – generally happy, rhythmic in biological functioning, and accepting of new experiences

**Difficult Children** – more irritable and harder to please

**Slow-to-Warm-Up Children** – mild but slow to adapt to new people and situations

- Dimensions of Temperament:
  - a. Activity Level
  - b. Biological Rhythmicity
  - c. Approach/Withdrawal
  - d. Intensity of Reaction
  - e. Quality of Mood
  - f. Persistence/Attention Span
  - g. Distractibility
  - h. Threshold of Responsiveness
  - i. Negative Affect
- Strong links between infant temperament and childhood personality at age of 7
- **Goodness of Fit** – the match between a child's temperament and the environmental demands and constraints the child must deal with
- **Kinetic Cues** – relies on movement
- **Monocular Cues (4 months)** – based on one eye
- **Binocular Cues (5-7 mos)** – based on both eyes

## Early Childhood

### 3 years old

- Children begin to lose their babyish roundness and take on the slender, athletic appearance of childhood
- Brain is approximately 90% of adult weight
- Cannot turn or stop suddenly or quickly
- Can jump a distance of 15-24 inches
- Can ascend a stairway unaided, alternating feet
- Can hop
- Handedness is evident
- All primary teeth are evident
- Can now pick up tiny objects between their thumb and forefingers (tho still clumsy)
- Know the difference between reality and imagination
- Can use 900 to 1000 words
- Typically begin to use plurals, possessives, and past tense

### 4 years old

- Peak of the density of synapses in the prefrontal cortex
- More effective control of stopping, starting, and turning
- Can jump a distance of 24-33 inches
- Can descend a long stairway alternating feet if supported
- Able to categorize objects to identify similarities and differences
- Can tell the differences in size
- They converse in sentences and may be declarative, negative, interrogative, or imperative
- Can recognize facial expressions, recognize emotions thru vocal cues and body postures

### 5 years old

- Can start, turn, and stop effectively in games
- Can descend a long stairway, unaided
- Run hard and enjoy races with each other
- Hand, arm, and body move together under better command of the eye
- Can now count to 20 or more and know the relative sizes of the numbers 1 through 10
- Speech is quite adultlike
- Children understand the public aspects of emotions (understand the things that causes others to be sad or happy)

### 6 years old

- Brain is 90% of its peak volume
- Permanent teeth begins to appear
- Has an expressive vocabulary of 2,600 words and understands more than 20,000

### 7 years old

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

Children start to understand that mental states can drive emotions

- **Handedness** – the preference of using one hand over the other
  - Left-handedness run in families
- **Preoperational Thought** – beginning of the ability to reconstruct in thought what has been established in behavior
- Divided into **Symbolic Function** and **Intuitive Thought**

**1. Symbolic Function** – being able to think about something in the absence of sensory or motor cues

- Can use symbols, or mental representations such as words, numbers, or images to which a person has attached meaning
- **Deferred Imitation** – children imitate an action at some point after observing it
- **Pretend Play** – fantasy play, dramatic play, or imaginary play; children use an object to represent something else
- The most extensive use of symbolic function is language
- Occurs between ages of 2 and 4

**2. Intuitive Thought** – begin to use primitive reasoning and want to know the answers to all sorts of questions

- Occurs approx. 4-7 yrs of age
- Children also begin to able to understand the symbols that describe physical spaces
- Piaget believed that children cannot yet reason logically about causality
- **Transduction** – they mentally link two events, especially events close in time, whether or not there is logically a causal relationship
- **Identities** – the concept that people and many things are basically the same even if they change in outward form, size, or appearance
- **Animism** – tendency to attribute life to objects that are not alive
- **Centration** – the tendency to focus on one aspect of a situation and neglect others
  - Children cannot **Decenter** (think about several aspects of a situation at one time)
  - Involves on focusing on one dimension while ignoring the other
  - **Irreversibility** – failure to understand that an action can go in two or more directions

- **Egocentrism** – young children center so much on their own point of view that they cannot take in another's
- **Conservation** – the fact that two things are equal remain so if their appearance is altered, as long as nothing is added or taken away
- **Theory of Mind** – the awareness of the broad range of human mental states – beliefs, intents, desires, dreams, and so forth – and the understanding that others have their own
  - Allows us to understand and predict the behavior of others and makes the social world understandable
- 3-5 yr old children are more proficient with language than younger children
- **Fast Mapping** – allows a child to pick up approximate meaning of a new word after hearing it only once or twice in conversation
  - Nouns are easier to fast map than verbs
- **Syntax** – a concept and involves the rules for putting together sentences in a particular language (grammar)
- **Pragmatics** – practical knowledge of how to use language to communicate (communication itself)
- **Social Speech** – speech intended to be understood by a listener
- **Private Speech** – talking aloud to oneself with no intent to communicate with others (Egocentric Speech)
  - Private Speech: Vygotsky
  - Egocentric Speech: Piaget
  - Immature (Piaget)
  - Learning Process (Vygotsky)
- **Emergent Literacy** – development of fundamental skills that eventually lead to being able to read
  - Social interaction promotes emergent literacy
- **Self-Concept** – our total picture of our abilities and traits
- Children's self-definition typically change between ages 5 and 7
- At about 7, children will be able to describe themselves in terms of generalized traits
- **Self-Esteem** – self-evaluative part of the self-concept, the judgement children make about their overall worth
  - Children's self-esteem tends to be unidimensional (either good or bad)



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Children whose self-esteem is contingent on success tend to become demoralized when they fail
- Children with noncontingent self-esteem tend to attribute failure or disappointment to factors outside themselves or to the need to try harder
- **Emotional self-regulation** – helps children guide their behavior and adjust their responses to meet societal expectations
- **Play** – is vitally important to development and has significant current and long-term functions
  - Enables children to engage with the world around them, use imagination, to discover flexible ways to use objects and solve problems, and to prepare for adult roles
- **Social Cognitive Theory** – observation enables children to learn much about gender-typed behaviors before performing them

Cognitive Levels of Play
<b>Functional Play (Locomotor Play or Sensorimotor Play)</b> – simplest level; begins during infancy, consisting of <u>repeated practice in large muscular movements</u>
<b>Constructive Play (Object Play or Practice Play)</b> – use of <u>objects or materials to make something</u>
<b>Dramatic Play (Pretend Play, Fantasy Play, Imaginative Play)</b> – involves <u>imaginary objects, actions, or roles</u>
<b>Formal Games</b> – <u>organized games</u> with rules, procedures, and penalties
6 Types of Play by Parten (1932)
<b>Unoccupied Behavior</b> – child does not seem to be playing but <u>watches anything of momentary interest</u>
<b>Onlooker Behavior</b> – child spends most time <u>watching others play</u>
<b>Solitary Independent Play</b> – child plays <u>alone</u>
<b>Parallel Play</b> – <u>plays beside the other children independently</u>
<b>Associative Play</b> – <u>children talk, borrow, and lend toys, follow each other around and play similarly</u>
<b>Cooperative or Organized Supplementary Play</b> – child <u>plays in a group organized for some goal</u> – to make something, play formal game, or dramatize a situation

- **Reticent Play** – combination of Unoccupied and Onlooker categories is often a manifestation of shyness
- **Social Play** – involves interaction with peers

- **Constructive play** – combines sensorimotor/practice play with symbolic representation
- **Games** – activities that children engage in for pleasure and that have rules
- Sex Segregation is common among preschoolers and becomes more prevalent in middle childhood
- **Gender Segregation** – a phenomenon wherein girls tend to select other girls as playmates, and so boys
- **Discipline** – refers to methods of molding character and of teaching self-control and acceptable behavior
- **External Reinforcements** – may be tangible or intangible; it must be seen as rewarding and received fairly consistently after showing desired behavior
- **Internal Reinforcements** – a sense of pleasure or accomplishment
- Punishment, if consistent, immediate, and clearly tied to the offense, may be effective
  - Administered calmly, in private, and aimed at eliciting compliance not guilt
  - Effective when accompanied with short explanation
  - The desired behavior should be clear
  - **Corporal Punishment** – the use of physical force with the intention of causing a child to experience pain but not injury for the purpose of correction or control of the child's behavior
- **Inductive Techniques** – designed to encourage desirable behavior or discourage undesirable behavior by settling limits, demonstrating logical consequences of the action, explaining, discussing, etc.
  - To consider how her actions would affect others
- **Power Assertion** – intended to stop or discourage undesirable behavior through physical or verbal enforcement
- **Withdrawal of Love** – include ignoring, isolating, or showing dislike for a child
- Self-concept, self-esteem, emotion regulation
- Social emotions are usually attached to their parents

### Middle and Late Childhood

- Faster and more efficient information processing and an increased ability to ignore distractions
- The overall volume of gray matter (linked with IQ) increases pre-puberty and declines post-puberty
  - Decline is due to loss in the density of gray matter

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Gray matter volume peaks 1 to 2 years earlier in girls than boys
- The loss in density of gray matter with age is balanced by another change – a steady increase in white matter
- Motor Skills continue to improve in middle childhood
  - Children play games during recess which usually involves socialization
  - Boys typically play physically (running), whereas girls loves games that involves verbal expression or counting out loud (jump rope, hopscotch)
  - **Rough-And-Tumble Play** – wrestling, kicking, tumbling, grappling, and chasing, accompanied by laughing and screaming
  - 6-9 year olds need more flexible rules, shorter instruction time, and more free time to practice than older children
  - Older children are able to process instruction and learn team strategies
- Body Image (how one believes one looks) becomes important early in middle childhood, especially for girls, which could lead to eating disorders during adolescence (may be influenced by playing unrealistic dolls such as barbie)
- At about 7 years of age, children enter the stage of **Concrete Operations** according to Jean Piaget
- Children can now think logically because they can take multiple aspects of situations into account
- However, their thinking is still limited to real situations in the here and now
- Better understanding of:
- ✓ Spatial concepts – allows to interpret maps and navigate environment
- ✓ Causality – makes judgement about cause and effects
- ✓ Categorization
  - **Seriation** – arranging objects in a series according to one or more dimensions
  - **Transitive Inferences/Transitivity** – e.g.  $A < B < C$
  - **Class Inclusion** – ability to see the relationship between a whole and its parts, and to understand categories within a whole
- ✓ Inductive and Deductive reasoning
  - **Inductive Reasoning** – involves making observations about particular members of a class of people, animals, objects, or events, and then drawing conclusions about the class as a whole
  - **Deductive Reasoning** – starts with a general statement about a class and applies it to particular members of the class
  - Piaget believed that children in the concrete operations stage only used inductive reasoning
- ✓ Conservation
  - **Principle of Identity:** still same object even tho it has different appearance
  - **Principle of Reversibility:** can picture what would happen if he tried to roll back the clay of snake
  - **Decenter:** ability to look at more than one aspect of the two objects at once
- ✓ Numbers
  - Children use increasingly precise verbs, simile and metaphor
  - Rarely use passive voice
  - Understanding of rules of syntax becomes more sophisticated with age
  - Sentence structure continue to become more elaborate
  - Boys tend to use more controlling statements, negative interruptions, and competitive statements
  - Girls phrase their remarks in a more tentative, conciliatory way and are more polite and cooperative
  - **Self-Efficacy** – an individual's belief that they can execute behaviors necessary to attain specific performance
  - Doing well in school increases self-efficacy
  - Girls tend to do better in school than boys
  - Children who are disliked by their peers tend to do poorly in school
  - Many educators argue that smaller classes benefit students

### Adolescence

- A steady increase in white matter, nerve fibers that connect distant portions of the brain, permits faster information and better communication across hemispheres
- Increase in white matter occurs early in women than men
- By mid- to late adolescence, young people have fewer but stronger, smoother, and more effective neuronal connections, making cognitive processing more efficient

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Development of the brain starts at the back and moves forward
- The underdevelopment of frontal cortical systems by comparison may help explain why adolescents tend to seek thrills and novelty and why many of them find it hard to focus on long-term goals
- Peers tend to exert a stronger influence in adolescence in part because of a heightened neurobehavioral susceptibility to social reward cues and concurrent immaturity in the cognitive control system
- Adolescents enter what Piaget called the highest level of cognitive development – **Formal Operations**
- Adolescents move away from their reliance on concrete, real-world stimuli, and develop the capacity for abstract thought
- Usually around 11 yrs old
- They can now use symbols to represent other symbols, hidden messages, imagine possibilities, create hypotheses
- **Hypothetical-Deductive Reasoning** – methodical, scientific approach to problem solving, and it characterizes formal operations thinking
  - Involves ability to develop, consider, and test hypotheses
  - Piaget attributed it to a combination of brain maturation and expanding environmental opportunities
- According to David Elkind, the new way of thinking of adolescents, the way they look at themselves and their world, is as unfamiliar to them as their reshaped bodies, and they sometimes feel just awkward in its use
- Adolescents can keep many alternatives in mind at the same time yet may lack effective strategies for choosing them
- **Self-Consciousness** – adolescents can think about thinking – their own and the other people's thoughts
- **Imaginary Audience** – a conceptualized “observer” who is concerned with a young person's thoughts and behavior as he or she is
  - Adolescents often assume everyone is thinking about the same thing they are thinking about: themselves
- **Personal Fable** – belief that they are special, their experience is unique, and they are not subject to the rules that govern the rest of the world
  - Underlies much risky, self-destructive behavior
  - Brain immaturity biases adolescent toward risky decision making
- Adolescents also become more skilled in social perspective-taking, the ability to tailor their speech to another person's POV
- **Fuzzy-Trace Theory Dual-Process Model** – decision making is influenced by two cognitive systems: verbatim analytical and gist-intuitive, which operate in parallel
- **School** – offers opportunities to learn info, master new skills, and sharpen old skills
- Educational Practices are based on the assumption that students are, or can be motivated to learn
- Boys are more likely to fail to achieve a baseline of proficiency in reading, mathematics, and science
- Girls do better on verbal tasks that involve writing and language usage
- Boys do better in activities that involve visual and spatial functions helpful in math and science
- **Spillover** – experiences in different contexts influence each other
- A good middle or high school has an orderly, safe environment, an adequate material resources, a stable teaching staff, and a positive sense of community
- Adolescents are more satisfied with school if allowed to participate in making rules, if they feel supported from teachers and other students, and if the curriculum and instruction are meaningful and appropriately challenging and fit their interests, skill level, and needs
- Dropout reasons:
  - ✓ Low teacher expectations
  - ✓ Differential treatment
  - ✓ Less teacher support
  - ✓ Perceived irrelevance of the curriculum to culturally under-represented groups
- Self-Efficacy beliefs help shape the occupational options students consider and the way they prepare for careers
- **Service Learning** – form of education that promotes social responsibility and service to the community

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

**Young Adulthood**

- Stress may lead young adults to engage in risky behaviors, eat unhealthily, have poor quality of sleep, etc.
- **Emotion-Focused Coping** – manage emotions by refusing to think about an issue or reframing the event in the positive light
- **Problem-Focused Coping** – involves addressing an issue head-on and developing action-oriented ways of managing and changing a bad situation
- **Premenstrual Syndrome** – disorder that produces physical discomfort and emotional tension for up to 2 weeks before menstrual period
  - Response to monthly surges of female hormones
  - More typical in women in their 30s or older
  - *Dysmenorrhea*: caused by contractions of the uterus which are set in motion by prostaglandin
- **Infertility** – inability to conceive a baby
  - Common causes in women: failure to produce ova, mucus in the cervix or disease of the uterine lining
- **Reflective Thinking** – active, persistent, and careful consideration of information or beliefs
  - Continually question facts, draw inferences, and make connections
  - Frequently engage in critical thinking
  - At approx. 20-25 years of age, the brain forms new neurons, synapses, and dendritic connections, and the cortical regions that handle higher-level thinking become fully myelinated
- **Postformal Thought** – characterized by the ability to deal with inconsistency, contradiction, and compromise
  - Draws on intuition and emotion as well as logic to help people cope with situations such as social dilemmas
  - Acknowledges that there may be more than one valid way of viewing an issue and that the world is made up of shades of gray (*Relativistic Thought*)
  - *Provisional*: many young adults become more skeptical about what the truth is
  - use of both logic and experience

- **Schaie: A lifespan Model of Cognitive Development**

<b>Acquisitive Stage (Childhood and Adolescence)</b>
Children <u>acquire info and skills</u> mainly for their own sake or as preparation in society
<b>Achieving Stage (Late teens or early twenties to thirties)</b>
They <u>use what they know</u> to pursue goals
<b>Responsible Stage (Late 30s to early 60s)</b>
Use their minds to <u>solve practical problems</u> associated with responsibilities to others
<b>Executive Stage (30s or 40s through middle age)</b>
Responsible for societal systems or social movements
<b>Reorganizational Stage (end of middle age, beginning of late adulthood)</b>
<u>Enter retirement, reorganize their lives and intellectual energies</u> around meaningful pursuits that take place of paid work
<b>Reintegrative Stage (Late Adulthood)</b>
Focus on the purpose of what they do and <u>concentrate on tasks that have most meaning for them</u>
<b>Legacy-Creating Stage (advanced old age)</b>
Older people may <u>create instructions for the disposition of prized possessions</u> , make funeral arrangements, provide oral histories, or write their life stories as legacy for their loved ones

- **Componential Knowledge** – analytical abilities
- **Experiential Intelligence** – original thinking, experience-based
- **Contextual Intelligence** – knowing your way around
- **Tacit Knowledge** – inside information, know-how, “hacks”, not formally taught or openly expressed; commonsense knowledge of how to get aged
  - Includes self-management, management of tasks, and management of others
- **Emotional Intelligence** – refers to four related skills: the abilities to perceive, use, understand, and manage or regulate emotions to achieve goals (Salovey & Mayer, 1990)
  - Mayer-Salovey-Caruso Emotional Intelligence Test
- In Kohlberg's Postconventional Morality, people became more capable of fully principled moral reasoning, and that they made moral decisions on the basis of universal principles of justice
- Culture affects the understanding of morality



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- As students gain more experience and think more deeply, they begin to realize that much knowledge and many values are somewhat relative
- **Commitment within Relativism** – students decide for themselves, ideally, what they want to believe
- Whether a person completes college may depend not only on motivation, academic aptitude, and preparation, and ability to work independently, but also on social integration and social support
- People seem to grow in challenging jobs
- **Substantive Complexity** – the degree of thought and independent judgement it requires – and a person's flexibility in coping with cognitive demands
- **Spillover Hypothesis** – cognitive gains from work carry over to nonworking hours
- Intimate relationship requires self-awareness, empathy, the ability to communicate emotions, resolve conflict, and sustain commitments
- Friendships during young adulthood are much less stable because people relocate more frequently
- They tend to center on work, sharing confidence and advice
- Women have more intimate friendships than men
- Men are more likely to share information and activities
- **Fictive Kin** – treated as family members despite a lack of blood relationship
- **Sternberg's Triangular Theory of Love** – the way love develops is a story. The loves are its authors, and the story they create reflects their personalities and their conceptions of love.
- Three elements of love:
  - a. **Intimacy** – emotional element, involves self-disclosure, which leads to connection, warmth, and trust
  - b. **Passion** – motivational element, based on inner drives that translate physiological arousal into sexual desire
  - c. **Commitment** – cognitive element, the decision to love and make the relationship work (exclusive or marry)

<b>Nonlove</b>
<u>No intimacy, passion, nor commitment</u>
Casual Interactions
e.g., friends, acquaintances
<b>Liking</b>
<u>Intimacy present</u>

There is closeness, understanding, emotional support, affection, bondedness, and warmth
e.g., ka-talking stage mo na ayaw makipag-meet up at walang label
<b>Infatuation</b>
<u>Passion present</u>
Strong physical attraction
e.g., crushes, someone na naka-salubong mo sa kanto tapos crush mo agad
<b>Empty Love</b>
<u>Commitment only</u>
Found in long-term relationship that have lost both intimacy and passion
e.g., arranged marriage (justin-hailey charot)
<b>Companionate Love</b>
<u>Intimacy and Commitment present</u>
Long-term, committed friendship, no physical attraction
e.g., Couple with no sex life charot, BESTIEEEEEES
<b>Fatuous Love</b>
<u>Passion and Commitment only</u>
Couple makes commitment without allowing themselves to develop intimacy
e.g., Fuck Buddies
<b>Romantic Love</b>
<u>Passion and Intimacy only</u>
Drawn to each other physically and bonded emotionally but not committed to each other
<b>Consummate Love</b>
<u>All three components completed</u>
e.g., SANA ALL

- Some young adults stay single because they have not found the right mate, some are single by choice
- **Friends With Benefits** – relationships of friendships blended with physical intimacy, but little commitment
- Gay and Lesbian relationships mirror heterosexual relationships
  - More likely to negotiate household chores on a more egalitarian basis
  - Resolve conflicts in more positive ways
  - Less stable
  - Lesbian couples are more likely to divorce than gay couples (AAAAYWW CALZONAAAAA)
- **Cohabitation** – unmarried couple involved in sexual relationship live together
- Most young adults plan to marry, but only when they feel ready, and they see getting on their feet

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- financially and establishing themselves in a stable jobs or careers
- Married people tend to be happier than unmarried people
- Sex impacts relationship quality
- Women tend to place more importance on emotional expressiveness than men do
- **Parental Investment Theory** – sex differences in mate preferences and mating behavior are based on the different amounts of time and effort men and women must invest in child rearing
- **Social Role Theory** – sex differences in mate preferences and mating behavior are adaptations to gender roles
- **Assortative Mating (Homogamy)** – tendency to mate with someone who has traits similar to one's own

Donald Super's Career Development Tasks
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1. <b>Crystallization</b> – develop and plan a tentative vocational goal
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2. <b>Specialization</b> – convert generalized preference into a specific choice
--

3. <b>Implement</b> – completing appropriate training and securing a position in the chosen occupation
--

### Middle Adulthood

- Middle-Aged people are in their prime
- Individuals who scored the highest in the study of Schaie tended to have high educational levels, flexible personalities, intact families, pursue cognitively complex occupations and other activities, to be married to someone more cognitively advanced, to be satisfied with their accomplishments
- **Fluid Intelligence** – ability to solve novel problems, such as problems that require little or no previous knowledge
  - Peak in young adulthood
  - Many older adults perform in the real world at high levels despite declines in fluid intelligence
- **Crystallized Intelligence** – ability to remember and use information acquired over a lifetime, such as academics
  - Increase through middle age and often until the end of life
- Mature adults show increasing competence in solving problems in their chosen field
- **Specialized Knowledge or Expertise:** form of crystallized intelligence that is related to the process of encapsulation
- Adults do not usually depend on the brain's information-processing-machinery because some adult's fluid intelligence becomes encapsulated (dedicated in handling specific kinds of knowledge)
- Expert thinking often seems automatic and intuitive
- Such intuitive, experience-based thinking is also a characteristic of Postformal Thought
- An important feature of postformal thought is its integrative nature – adults interpret what they read, see, or hear in terms of its meaning for them
- **Phased Retirement** – people reduce works hours or days, gradually moving into retirement over a number of years
- **Bridge Employment** – switching to another company or new line of work
- If work, both on job and home, could be made meaningful and challenging, more adults might retain or improve cognitive abilities
- Employers see benefits of workplace education in improved morale, increased quality of work, better teamwork and problem solving, and greater ability to cope with new technology and other changes in workplace
- **Literacy** – fundamental requisite for participation not only in the workplace but in all facets of a modern, information-driven society
- **5 Emotional Stages of Retirement:**
  1. **Pre-Retirement:** Planning the retirement
    - Critical time for setting up for success in retirement
    - Imagining ideal retirement, take stock for health, assess finances, building support network, decide when to retire
  2. **Honeymoon Phase:** Freedom
    - Enjoy newfound freedom and retirement
    - Can also be a time of anxiety and uncertainty because they feel purposeless
  3. **Disenchantment Phase:** What to do next?
    - Feel restless, aimless, and bored
    - Feeling worn out because of aimlessly trying to fill time with anything

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Find clarity and do introspection work to connect with self and discover retirement purpose
- Have realistic expectations, be proactive, and set life goals

#### 4. Reorientation: The New You

- Redefining yourself and finding new purpose in retirement
- Reassessing priorities
- Great opportunity for self-discovery

#### 5. Stability Phase: Retirement Routine

- Growth and contentment with new identity in retirement, and finding equilibrium
- Settling into a new normal
- Accepted retirement identity and created a daily routine that works for them
- **Religion** – organized set of beliefs, practices, rituals, and symbols that increases an individual's connection to a sacred or transcendent other
- **Religiousness** – degree of affiliation with an organized religion, participation in its rituals and practices
- **Spirituality** – involves experiencing something beyond oneself in transcendent manner
- Women have consistently shown stronger interest in religion and spirituality than men
- Viktor Frankl said that the three most distinct human qualities are spirituality, freedom, and responsibility
  - *Spirituality*, in his view, refers to a human being's uniqueness of spirit, philosophy, and mind
  - Having a sense of meaning in life can lead to clearer guidelines for living one's life and enhanced motivation to take care of oneself and reach goals
  - Four main needs for meaning that guide how people try to make sense of their lives:

<b>Need for Purpose</b> – goals and fulfillments
--

<b>Need for Values</b> – enable people to decide whether certain acts are right or wrong
--

<b>Need for a sense of efficacy</b> – belief that they can control their environment
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<b>Need for Self-Worth</b>
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- **Generativity** – involved finding meaning through contributing to society and leaving a legacy for future generations
  - Parenting, teaching, mentorship, productivity, self-generation or self-development
  - “Maintenance of the work”

- Associated with prosocial behaviors

- **Midlife Review** – involves recognizing the finiteness of life and can be a time of taking stock, discovering new insights about the self, and spurring midcourse corrections in the design and trajectory of one's life
- **Selective Optimization with Compensation** – enhancing overall cognitive functioning by using stronger abilities to compensate for those that have weakened

<b>Selecting</b> – fewer and more <u>meaningful activities or goals</u>
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<b>Optimizing</b> – the <u>resources</u> they have to achieve their goals
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<b>Compensating</b> – using resources <u>in alternative ways to achieve their goals</u>
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#### Old Age

- **Activities of Daily Livings** – include bathing, dressing, and using the toilet
- **Instrumental Activities of Daily Livings** – include activities that are more intellectually demanding such as financial management
- **Successful Aging** – good physical health, retention of cognitive abilities, and continuing engagement in social and productive activities
  - Individual sense of life satisfaction
- Lifelong program of exercise may prevent many physical changes once associated with normal aging
- Inactivity contributes to heart disease, diabetes, colon cancer, and high blood pressure
- **Volunteerism** – performing unpaid work for altruistic reasons
- **Religious Coping** – the tendency to turn to religious beliefs and institutions in times of stress and troubles
  - Lower mortality rate and better physical health and mental health
- Marriages in late adulthood, on average, highly satisfying for both spouses, who exhibit strong loyalty and mutual affection
- Marriage is associated with better physical and mental health, higher levels of life satisfaction, and lower rates of institutionalization
- Older adults can learn new job skills, but training programs are most effective when they take into consideration age-related changes in physical and cognitive functioning

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- **Wisdom** – exceptional breadth and depth of knowledge about the conditions of life and human affects and reflective judgement about the application of knowledge
  - May involve the lead to transcendence, detachment from preoccupation with the self
  - The ability to navigate the messiness of life
  - Older adults tend to make the most of their abilities, often exploiting gains in one area to offset declines in another

### Developmental Challenges and Milestones

#### Challenges during Prenatal and Childhood

##### Prenatal

- Women of normal weight are less likely to have birth complications
- Overweight women have risk of having longer deliveries, need more health care services, gestational diabetes, cesarean delivery, birth defects etc.
- Malnutrition results to fetal growth restriction and low birth weight
- *Thalidomide*: caused stunted limbs, facial deformities, and defective organs
- Another set of drugs that are harmful for pregnant women: Antibiotics, certain Barbiturates, Opiates, Acutane
- Opioids are associated with small babies, fetal death, preterm labor, and aspiration of meconium
- Babies born with drug-addicted mothers tend to experience withdrawal once they are born and no longer receive drugs
- *Neonate Abstinence Syndrome*: sleep disturbance, tremors, difficulty regulating the body, irritability, crying and etc.
- *Fetal Alcohol Syndrome*: characterized by a combination of retarded growth, face and body malformations, and disorders of the central nervous system
- Maternal smoking was identified to be the most important factor for low-birth weight babies
- Tobacco also increases the risks of miscarriage, growth retardation, stillbirth, SIDS, etc.
- Caffeine has slightly increased risk for miscarriage, stillbirth, and low birth weight babies
- Rubella almost certain to cause deafness and heart defects to babies
- *Toxoplasmosis*: caused by parasite in the bodies of cattle, sheep, and pigs, and in the intestinal tracts of cats that causes fetal brain damage, severely impaired eyesight, seizures, miscarriage, etc.

- Diabetic mothers are most likely to have babies that have heart and neural tube defects
- Stress and anxiety has been associated with more irritable and active temperament in newborns
- Chronic stress can result in preterm delivery
- Depression may cause premature birth or developmental delays
- Chance of miscarriage or stillbirth rises with maternal age
- Adolescent Mothers tend to have premature or underweight babies
- Fetal exposure to low level of environmental toxins may result to asthma, allergies, lupus
- X-Rays could triple the risk of having full-term, low-birth weight babies
- Exposure to lead, marijuana, tobacco, radiation, pesticides, etc may result in abnormal or poor quality sperm
- Babies who fathers had diagnostic x-rays within the year prior to conception or had a high lead exposure at work tends to have low birth weight and slowed fetal growth
- Older fathers may be significant source of birth defects due to damaged or deteriorated sperm such as dwarfism, schizophrenia, bipolar disorder, ASD
- *Breech Position*: baby's buttocks are the first part to emerge from the vagina which can cause respiratory problems
- Complications: bleeding, infection, damage to pelvic organs, post-operative pains, riskier future pregnancies
- *APGAR Scale*: widely used to assess the health of newborns at 1-5 mins after birth
  - 7-10, condition is good
  - 5, developmental difficulties
  - 3 or below, emergency and the baby might not survive
  - 9-10 score, risk of developing ADHD in childhood
- *Anoxia*: lack of oxygen
- *Hypoxia*: reduced oxygen supply
- Anoxia or Hypoxia may occur during delivery as a result of repeated compression of the placenta and umbilical cord that could leave permanent brain damage, mental retardation, behavior problems or even death
- *Meconium*: stringy, greenish-black waste matter formed in the fetal intestinal tract
- *Neonatal Jaundice*: skin and eyeballs look yellow caused by immaturity of the liver
- *Low Birth Weight Infants*: weigh less than 5 pounds and 8 ounces at birth



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- *Very Low birth Weight*: less than 3 pounds 4 ounces
- *Extremely Low Birth*: less than 2 pounds
- *Pre-term Infants*: born three weeks or more before pregnancy reach full term (before the completion of 37 weeks of gestation)
- *Small for Date Infants (Small for Gestational Age Infants)*: those whose birth weight is below normal when the length of pregnancy is considered
- *Progestin*: might help in reducing preterm birth
- *Extremely Preterm*: born less than 28 weeks gestation
- *Very Preterm*: less than 33 weeks
- *Kangaroo Care*: involves skin-to-skin contact in which the baby, wearing only diaper, is held upright against the parent's bare chest to help stabilize the preterm's heartbeat, temp, and breathing

### Infancy & Toddlerhood

- *Nonorganic Failure to thrive*: slowed or arrested physical growth with no known medical cause, accompanied by poor developmental and emotional functioning
- *Shaken Baby Syndrome*: baby has a weak neck muscles, and a large, heavy head, shaking makes the brain bounce back and forth inside the skull
- One condition commonly faced by preterm babies is *Respiratory Distress Syndrome* – wherein there is a lack of surfactant (lung-coating substance) that keeps air sacs from collapsing
- *Postmature Babies*: tend to be long and this because they have kept growing in the womb but have had an insufficient blood supply toward the end of gestation
- *Sudden Infant Death Syndrome*: crib death; sudden death of an infant under age 1 which cause of death remains unexplained

### Early Childhood

- Sleep problems are occasional and usually outgrown
- Many of sleep problems issues are the result of ineffective parenting
- Persistent sleep problems may indicate emotional, physiological, or neurological condition that needs to be examines
- Night terrors generally peak at about 1 ½ years and are common between 2 ½ and 4 years of age
- Sleepwalking, sleeptalking, and night terrors are common when children are sleep deprived, have fever or on medications, or when conditions are noisy
- Nightmares are common during early childhood
- *Enuresis*: repeated involuntary urination at night by children old enough to have bladder control

- Motor coordination in childhood tends to be relatively stable over time
- *Handedness*: the preference of using one hand over the other
- 41 million children under age 5 were obese in 2016
- *Stunted Children*: normal weight but shorter than they should for their age and may have cognitive and physical deficiencies, visible in developing countries
- Food Allergies are more prevalent in children than in adults and most of them outgrow their allergies
- Car accidents are the most commonly reported cause of accidental death for children over the age of 4
- Children exposed to tobacco smoke are more likely to develop wheezing symptoms and asthma, and have a higher risk for high-blood pressure
- Other common causes of death in early childhood: cancer, congenital abnormalities, and chromosomal disorders, assault, heart disease, respiratory disease and septicemia
- Contextual factors such as poverty and parenting quality are linked to the development of the brain

### Types of Child Maltreatment

1. **Physical Abuse** – infliction of physical injury
2. **Child Neglect** – failure to provide child's basic needs
3. **Sexual Abuse**
4. **Emotional Abuse** – acts or omissions by parents or other caregivers that have caused or could cause, serious behavioral, cognitive, or emotional problems

### Middle and Late Childhood

- Tooth decay remains one of the most common chronic untreated conditions
- Access to proper dental care is important for young children
- Recommended calories per day for schoolchildren 9 to 13 years of range from 1,400 to 2,600 depending on gender and activity level
- Sleep: average of 10 hrs a day
- Factors that affect children's sleep:
  - Exposure to media screens
  - Physical inactivity
  - Secondhand smoke
  - Poor housing
  - Vandalism
  - Lack of parks and playgrounds
- Persistent snoring, at least 3x a week, may indicate a child has sleep-disordered breathing, which is linked to behavioral and learning difficulties
- Body Image (how one believes one looks) becomes important early in middle childhood, especially for girls, which could lead to eating disorders during

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

adolescence (may be influenced by playing unrealistic dolls such as barbie)

- Causes of obesity:

- Overweight parents or other relatives
- Poor nutrition
- Eating fast food
- Sugar
- Inactivity

- *Acute Medical Conditions*: occasional, short-term conditions, such as infections and warts

- *Chronic Medical Conditions*: physical, developmental, behavioral, or emotional conditions that persists 3 months or more such as asthma and diabetes

- *Asthma*: chronic, allergy-based respiratory disease characterized by sudden attacks of coughing, wheezing, and difficulty breathing

- Caused by genetics, smoke exposure, low levels of vitamin D

- *Diabetes*: one of the most common diseases in school-aged children

- Characterized by high levels of glucose in the blood as a result of defective insulin production, ineffective insulin action, or both

- *Hypertension*: high blood pressure; children with hypertension are more likely to have learning disabilities and may have problems with executive functioning

- Accidental Injuries are the leading cause of accidental death among school-age US Children

- *Intellectual Disability*: significantly subnormal cognitive functioning

- Intervention programs have helped many of those mildly or moderately disabled and those considered borderline to hold jobs, live in the community, and function in society

- *Learning Disabilities*: difficulty in learning that involves understanding or using spoken or written language, and the difficulty can appear in listening, thinking, reading, writing, and spelling

- *Dyslexia*: most commonly diagnosed LD; severe impairment in their ability to read and spell
- *Dysgraphia*: difficulty in handwriting
- *Dyscalculia*: developmental arithmetic disorder

- *ADHD*: most common mental disorder in childhood

- *Autism Spectrum Disorder*: Pervasive Developmental Disorder

- *Autistic Disorder*: severe developmental ASD that has onset during the first 3 yrs of life

- *Asperger Syndrome*: mild ASD

- *Bullying*: aggression that is deliberately, persistently directed against a particular target

### Parenting Styles

**1. Authoritarian** – emphasizes control and unquestioning obedience, high control, low responsiveness

**2. Permissive/Indulgent** – make few demands, warm, noncontrolling, low control, high responsiveness

**3. Authoritative** – emphasizes child's individuality but also stress limits, high control, high responsiveness

**4. Neglectful or Uninvolved** – parents neglect children; low control, low responsiveness

- *Altruism*: motivation to help another person with no expectation of reward

- *Prosocial Behavior*: voluntary, positive actions to help others

- *Instrumental Aggression*: used aggression as a tool to gain access to a wanted object

- *Overt (Direct) Aggression*: boys; tend to openly direct aggressive acts at a target

- *Relational Aggression*: more subtle; indirect social aggression

- *Retaliatory Aggression*: to get revenge

### Challenges during Adolescence and Adulthood

#### Adolescence

- *Secular Trend*: children may be starting puberty earlier but spending more time to reach full sexual maturity

- May be due to higher standard of living, undernutrition, health, exposure to endocrine-disrupting chemicals

- May also because they were firstborn, being born to a single mother and harsh maternal parenting practices

- However, it was concluded that children who are exposed to high stress when young tend to reach pubertal milestone earlier than those who are not

- Early maturation has been linked to adult health issues such as cancers, diabetes, and cardiovascular disease

- Early puberty can be a predictor of adult obesity and polycystic ovarian syndrome (PCOS) – disorder causing acne, irregular periods, excess hair growth, and the growth of cysts on ovaries

- Effects of early or late maturation are most likely to be negative when adolescents are much more or less developed than peers

- The underdevelopment of frontal cortical systems by comparison may help explain why adolescents tend to seek thrills and novelty and why many of them find it hard to focus on long-term goals

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Peers tend to exert a stronger influence in adolescence in part because of a heightened neurobehavioral susceptibility to social reward cues and concurrent immaturity in the cognitive control system
- A sedentary lifestyle may result in increased risk of poor mental health, obesity, type 2 diabetes, and an increased likelihood of heart disease and cancer in adulthood
- Children generally go to sleep later and sleep less on school days the older they get
- Sleep deprivation can sap motivation and cause irritability, and concentration and school performance can suffer
- After puberty, the secretion of melatonin takes place later at night, making it difficult for adolescent to go to bed early
- Overweight teenagers tend to be in poorer health than their peers and are more likely have difficulty attending school or engaging in strenuous activity
- *Body Image*: one's perception, thoughts, and feelings about one's body
- Girls tend to express the highest level of body satisfaction when underweight, some dissatisfaction when average weight, and the most dissatisfaction when overweight
- *Anorexia Nervosa*: distorted body image, severely underweight, may be withdrawn or depressed, and afraid of losing control and becoming overweight
- *Bulimia Nervosa*: short-lived binge eating and then purging by self-induced vomiting, strict dieting, excessive exercise, etc.
- *Binge-eating disorder*: bingeing without purging of food
- A recent trend is the abuse of nonprescription cough and cold meds (dextromethorphan)
- *Binge Drinking*: consuming five or more drinks on one occasion
- When the brain is undergoing significant structural and functional change, might be a period of the life span during which teens should be particularly sensitive to environmental influences
- Alcohol interacts with inhibitory and excitatory receptor systems that are developing in adolescence, making them more sensitive to rewarding effects of alcohol and less sensitive to its negative features
- Those who drink show changes in key prefrontal areas, including middle frontal gyrus, superior frontal gyrus, left frontal cortex, frontal pole, and left frontal gyrus – all areas involved in executive control
- Being female is a risk factor for depression

- This may be due to biological changes associated with puberty
- Motor Vehicle collisions are the leading cause of accidental deaths among US teenagers
- Homicides are the third leading cause
- Suicide is the second cause of death
- Young people who consider or attempt suicide tend to have histories of emotional illness

### Young Adulthood

- The habits that young adults develop during this time in the life span tend to become ingrained over time and are highly predictive of the likelihood they will experience good health at older ages
- Genes affect the action of the hormone receptors, stress response systems, and synaptic plasticity may influence a person's ability to respond adaptively to stressful events
- Poor diets and lack of physical activity are among the leading causes of preventable diseases, overweight, and obesity
- WHO recommends Mediterranean-style diet rich in fruits, vegetables, whole grains, and unsaturated fats
- Increase snacking, availability of inexpensive fast foods, supersized portions, labor-saving technologies, high-fat diets, and sedentary recreational pursuits explains obesity epidemic
- *Bariatric Surgery*: any surgery that is carried out to induce weight loss, and it generally involves rerouting or removing parts of the stomach or small intestine
- The most common eating disorders in Young Adulthood are Anorexia Nervosa and Bulimia Nervosa
- People who are physically active maintain healthy body weight, builds muscles, strengthen heart and lungs, lowers blood pressure, protects against heart disease, etc.
- High levels of chronic stress are related to a host of physical and immunological impairments
- Stress may lead young adults to engage in risky behaviors, eat unhealthily, have poor quality of sleep, etc.
- *Emotion-Focused Coping*: manage emotions by refusing to think about an issue or reframing the event in the positive light
- *Problem-Focused Coping*: involves addressing an issue head-on and developing action-oriented ways of managing and changing a bad situation
- College-age women more likely to use emotion-focused strategies
- Among college students, family stress, academic stress, is associated with high levels of insomnia

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Sleep Deprivation affects not only the physical health but also cognitive, emotional, and social functioning as well
- Primary cognitive consequence is impaired attention and vigilance
- Chronic sleep deprivation can seriously worsen cognitive performance
- Sleep deprivation has been linked to depression and insomnia and sleep disturbances also are related to the risk of postpartum depression
- Smoking is the leading preventable cause of death, illness and impoverishment worldwide
- A tendency to addiction may be genetic
- College students tend to drink more frequently and more heavily than their noncollegiate peers
- *Risky Drinking*: consuming more than 14 drinks a week or 4 drinks on any single day for men and more than 7 drinks a week or 3 days on any single day for women
- *Social Integration*: active engagement in a broad range of social relationships, activities, and roles
- *Social Support*: refers to material information, and psychological resources derived from the social network on which a person can rely for help in coping with stress
- *Alcoholism*: long term physical condition characterized by compulsive drinking that a person is unable to control
- The most common habit-forming drugs include marijuana and prescription painkillers, followed by cocaine and heroin
- Adolescence and emerging adulthood appear to be sensitive periods for the onset of depressive disorders
- Adolescents who are depressed and who depression carries over into adulthood, tend to have had significant childhood risk factors, such as neurological or developmental disorders, dysfunctional or unstable families, and childhood behavioral disorders
- Adult-onset group tend to have had low levels of childhood risk factors and to possess more resources to deal with the challenges of emerging adulthood
- Pre-marital sex has been increasing for adults over 18
- Acceptability of homosexual unions is growing, especially in younger cohorts and in women
- *Sexual Script*: stereotyped pattern of role prescriptions for how individuals should behave sexually
- Emerging adults tend to have more sexual partners than in older age groups, but they have sex less frequently

- The most common contraceptive are the birth control pills, female sterilization, and condoms
- Casual Sex is fairly common
- However, Sexual assaults are problem
- *Rape*: forcible sexual intercourse
- *Date or Acquaintance Rape*: coercive sexual activity directed at someone with whom the perpetrator is at least casually acquainted
- Most lesbian, gay, bisexual, and transgender persons are clear about their sexual identity
- *Premenstrual Syndrome*: disorder that produces physical discomfort and emotional tension for up to 2 weeks before menstrual period
- Response to monthly surges of female hormones
- More typical in women in their 30s or older
- *Dysmenorrhea*: caused by contractions of the uterus which are set in motion by prostaglandin
- *Infertility*: inability to conceive a baby
- Common causes in women: failure to produce ova, mucus in the cervix or disease of the uterine lining
- Marital satisfaction typically declines during the child-raising years, and the more children, the greater decline
- Many couples find their relationship becoming more traditional following the birth of a child, with the woman often engaging in the bulk of caregiving and housekeeping
- Combining work and family roles is good for both men's and women's mental and physical health and has positive effects on the strength of their relationship
- The most cited reasons are incompatibility, lack of emotional support, lack of career support, abuse, premarital cohabitation, and infidelity
- Couples are more likely to stay married if they have children. However, it can create more conflict and does greater damage
- Adults with divorced parents are more likely to expect that their marriage will not last (commitment issues)
- Divorce tends to reduce long-term well-being
- People who were thought they were happily married tend to react more negatively and adapt more slowly to divorce
- Remarriage is the triumph of hope over experience
- Families in which both parents bring children into marriage are marked by higher levels of conflict
- Remarriages are more likely to end in divorce than second marriage

#### Middle Adulthood

- Age-related visual problems occur mainly in five areas: near vision, dynamic vision, sensitivity to light,



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

visual search, and speed of processing visual information

- *Presbyopia*: – difficulty focusing on near objects
- *Myopia*: nearsightedness
- *Presbycusis*: gradual hearing loss
- Men experience hearing loss quickly than women
- Noise experienced at the work site
- Sensitivity to taste and smell also declines in midlife
- Some loss of muscle strength is usually noticeable by age of 45
- *Basal Metabolism*: minimum amount of energy that your body needs to maintain vital functions while resting
- Manual Dexterity generally becomes less efficient with age
- Aging brain works more slowly and have difficulty juggling multiple tasks
- The ability to ignore distractions declines with age
- Decrease in the volume of gray matter and myelin begins to break down with age
- Physical activity and fitness are associated with higher white and gray matter volume
- Meditation affords cognitive benefits to middle aged adults and may help offset declines
- Skin may become less taut and smooth as the layer of fat below the surface becomes thinner, collagen molecules more rigid, and elastin fibers more brittle
- Middle-aged people tend to gain weight as a result of accumulation of body fat and lose height due to shrinkage of the intervertebral disks
- *Vital Capacity*: the maximum volume of air the lungs can draw in and expel – may begin to diminish at about age of 40
- Middle-aged adults are less likely to fall asleep at daytime, need less sleep to maintain alertness, and slow reductions in slow wave sleeps at night
- *Menopause*: when a woman permanently stop ovulating and menstruating and can no longer conceive a child
- One year after the last menstrual period
- *Perimenopause (Climacteric)*: beginning of menopause; woman's production of mature ova begins to decline, and the ovaries produce less estrogen
- Hot flashes, night sweats, vaginal dryness, sleep disturbances, mood disturbances, urinary incontinence, cognitive disturbances, somatic symptoms, sexual dysfunction
- *Menopause Hormone Therapy and SSRIs*
- At age 30, men's testosterone levels, sperm count, genetic quality declines

- Men at this age also experiences sexual dysfunction due to diabetes, obesity, hypertension, depression, etc.
- *Hypertension*: high blood pressure, increasing important concern from midlife and the world's leading preventable cause of early death
- Cancer has replaced heart disease as the leading cause of death between ages 45 and 64
- *Type 2 Diabetes*: mature onset, the most common type; develops after age 30; glucose levels rise because the cells lose their ability to use insulin
- *Type 1 Diabetes*: juvenile-onset, or insulin-dependent, in which the levels of blood sugar rises because the body does not produce enough insulin
- Excess weight in middle age increases the risk of impaired health and death
- People with low socioeconomic status tend to have poorer health, shorter life expectancy, more activity limitations due to chronic disease, and lower well-being than people with higher SES
- Women have a higher life expectancy than men and lower death rates, may be due to genetic protection given by the second X chromosome and before menopause, to beneficial effects of estrogen on both cardiovascular and cognitive health
- However, women report being in fair or poor health than men
- *Osteoporosis*: bones become thin and brittle as a result of calcium depletion (due to falling of estrogen levels)
- Good lifestyle habits can reduce risk, if started early in life
- Breast cancer is responsible for the largest number of cancer-related deaths among women
- Risks: overweight, alcoholism, early menarche and late menopause, history of breast cancer in the family, no children, did not breast-feed, or late pregnancy
- Treated by removal of part or all breast and chemotherapy
- *Mammography*: diagnostic x-ray of the breasts
- The most troublesome physical effects of menopause are linked to reduce levels of estrogen and hormone therapy
- *Hormone Therapy*: treatment with artificial estrogen
- *Stress*: the damage that occurs when perceived environmental demands or stressors exceed a person's capacity to cope with them
- Stress in midlife may come from role changes, career transitions, grown children leaving home, and the renegotiation of family relationships
- Women experience more stress than men and to be more concerned about stress

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- The classic stress response – fight or flight – may be more characteristic of men, activated in part by testosterone
- The brain interacts with all of the body's biological systems, feelings and beliefs affect bodily functions, including the functioning of the immune system
- *Midlife Crisis*: changes in personality and lifestyle during middle forties
- Many people realize that they will not be able to fulfill the dreams of their youth, or that fulfillment of their own mortality
- People who do have crisis at midlife generally also have crises at other times in their lives as well
- Manifestation of a neurotic personality rather than developmental phase
- *Turning Point*: psychological transition that involves significant change or transformation in the perceived meaning, purpose, or direction of a person's life
- Triggered by major life events, normative changes, or a new understanding of past experience
- The most common pattern for marriages was for marriages to be broken by death and for survivors to remarry
- Marriages generally follow a developmental sequence, with initial sharp declines in marriage satisfaction followed by a plateau, then further, slower declines over the longer term
- One of the negative impact of marital satisfaction is the birth of a child
- Couples who are sexually satisfied are generally satisfied with their marriages
- When older adults cohabitate, their relationships are more stable than those of younger cohabiting adults
- Higher divorce rates at middle age
- Divorce is associated with elevated chance of chronic health conditions and mortality in both sexes, but specially in men
- Long-standing marriages may be less likely to break up than more recent ones
- *Marital Capital*: the longer a couple is married, the more likely they are to have built up joint financial assets, to share the same friends, to go through important experiences together, and to get used to the emotional benefits that marriage can provide
- Marriage is associated with encouragement of health-promoting behaviors
- One factor that seems to affect relationship quality in gays and lesbians is whether or one they have internalized society's negative views on homosexuality
- The quality of midlife friendships often makes up for what they lack in quantity of time spent

- *Empty Nest*: occurs when the youngest child leaves home
- In a good marriage, departure of children generally increases marital satisfaction
- *Revolving Door Syndrome or Boomerang Phenomenon*: returning to parent's home, sometimes with their own families
- Prolonged Parenting may lead to intergenerational tension when it contradicts parent's normative expectations

#### Old Age

- Women live longer and have lower mortality rates at all ages than men
- Women's longer lives also have been attributed to their greater tendency to take care of themselves and to seek medical care, the higher level of social support they enjoy, and the rise in women's socioeconomic status in recent decades
- *Endocrine Theory*: biological clocks act through hormones to control the pace of aging
- *Immunological Theory*: programmed decline in immune system functions leads to increased vulnerability to infectious disease and thus to aging and death
- *Evolutionary Theory*: Aging is an evolved trait thus genes that promote reproduction are selected at higher rates than genes that extend lives
- *Variable-Rate Theories*: aging is the results of random processes that vary from person to person (Error theories)
- *Wear-and-Tear Theory*: cells and tissues have vital parts that wear out
- *Free-Radical Theory*: Accumulated damage from oxygen radicals causes cells and eventually organs to stop functioning
- *Rate-of-Living Theory*: the greater an organism's rate of metabolism, the shorter its life span
- *Autoimmune Theory*: Immune system becomes confused and attacks its own body cells
- *Survival Curve*: represents the percentage of people or animals alive at various age
- The most fruitful area for longevity interventions should be focused on risk reduction and living a healthy lifestyle
- Older skin tends to become paler and less elastic, varicose veins appears in legs
- They become shorter due to disks between spinal vertebrae atrophy
- Lungs become less effective because of reductions in Lung volume, atrophy in muscles involve in breathing, and reductions in the ability of cilia

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Elderly adults are more likely to suffer from Arrhythmia (irregular heartbeat), the muscle walls thicken, and the valves that control the flow of blood in and out of the heart may no longer open completely
- *Reserve Capacity*: backup capacity that helps body system function to their utmost limits in times of stress
- In late adulthood, the brain gradually diminishes in volume and weight, particularly in the frontal and temporal regions
- Hippocampus (memory area) also shrinks
- Decrease in the number of dopamine neurotransmitters due to losses of synapses
- Older eyes need more light to see, are more sensitive to glare, and may have trouble locating and reading signs
- *Cataracts*: cloudy or opaque areas in the lenses of the eyes, are common in older adults
- *Age-Related Macular Degeneration*: leading cause of visual impairment in older adults; the retinal cells in the macula degenerate over time, and the center of the retina gradually loses the ability to sharply distinguish fine details
- *Glaucoma*: irreversible damage to the optic nerve caused by increased pressure in the eye
- Loss of strength is greater for lower than for upper limbs
- Falls, the most common cause of fractures, become increasingly common with age
- *Functional Fitness*: exercises or activities that improve daily activity
- Older people tend to sleep and dream less than before driven by the normative changes in circadian rhythms
- Men typically take longer to develop erection and to ejaculate, may need more manual stimulation, may experience longer intervals between erections or may have difficulty doing it
- Women have difficulty in arousal, orgasm, etc.
- Lifelong program of exercise may prevent many physical changes once associated with normal aging
- Inactivity contributes to heart disease, diabetes, colon cancer, and high blood pressure
- *Dementia*: the general term for physiologically caused cognitive and behavioral decline sufficient to interfere with daily activities
- *Alzheimer's*: most common type, caused by specific changes in the brain (abnormal build up of neurofibrillary tangles and amyloid plaque in the brain) (Amnesia, Aphasia, Agnosia, Apraxia, Anomia)
- *Vascular*: caused by strokes or other issues of blood flow in the brain; may be due to diabetes and high cholesterol; have strokes like episodes

- *Lewy Bodies*: have movement or balance (stiffness or trembling); daytime sleepiness, confusion, or staring; trouble sleeping at night and visual hallucinations
- *Frontotemporal*: leads to personality and behavior changes and problems in language skills
- *Huntington's*: resulted from gene mutation which impacts movement, behavior, and cognition; personality also changes, loss of coordination, difficulty in swallowing and speaking
- *Parkinson's*: uncontrollable movements, tremor, stiffness, slow movement, prevalent in men than women; nerve cells in basal ganglia become impaired; L-Dopa as treatment
- Language problems are probably results of the problems accessing and retrieving information from the memory
- Dysfunction in frontal lobes and hippocampus may cause false memories
- Older adults seem to have difficulty encoding new episodic memories because of difficulties in forming and later recalling a coherent and cohesive episode
- Storage also deteriorate to the point retrieval becomes difficult
- *Terminal Drop*: rapid decline in well-being and life satisfaction approx. 3-5 yrs before death
- Close marital relationship can moderate the negative psychological effects of functional disabilities by reducing psychological distress
- Widowhood has been increasingly associated with increased mortality, with sharpest declines seen in the first 6 months following the death of a spouse

### Identifying the challenges with Death

- **Terminal Drop or Terminal Decline** – specifically to a widely observed decline in cognitive abilities shortly before death
- **Near-Death Experience** – often involving a sense of being out of the body or sucked into a tunnel and visions of bright lights or mystical encounters
  - Linked to stimulation or damage of various brain areas, most notably in bilateral frontal and occipital areas
  - Generally experienced as positive as a result of the release of endorphins
- **Five Stages of Death**
  1. Denial
  2. Anger
  3. Bargain
  4. Depression
  5. Acceptance

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- **Grief** – emotional response that generally follows closely on the heels of death
- **Bereavement** – response to the loss of some whom a person feels close
- **Grief Work** – working out of psychological issues connected with grief often takes the following path:
  4. **Shock and Disbelief**
  5. **Preoccupation with the memory of the dead person**
  6. **Resolution**
- **Recovery Pattern** – mourner goes high to low distress
- **Delayed Grief** – moderate or elevated initial grief, and symptoms worsen over time
- **Chronic Grief** – distressed for a long time
- **Complicated Grief** – atypical grief reactions
- **Disenfranchised Grief** – grief that is not socially recognized
- **Anticipatory Grief** – when death is expected
- **Resilience** – the mourner shows a low and gradually diminishing level of grief in response to the death of a loved one
- By age 4, children build a partial understanding of the biological nature of death
- Adjusting to loss is more difficult if a child had a troubled relationship with the person who died
- They do not understand death, but they understand loss
- Often, teens turn to peers for support
- Young adults will find their entire world collapsing at once when they knew they are dying instead of dealing with other issues
- Middle-Aged and Older adults are more prepared with death
- **Terror Management Theory** – human's unique understanding of death, in concern with self-preservation needs and capacity for fear, results in common emotional and psychological responses when mortality, or thoughts of death are made salient

- cries when they are unhappy and become quiet at the sound of human voice or when they are picked up

*2<sup>nd</sup> – 3<sup>rd</sup> Month:*

- babies can now lift their heads  
 - can grasp moderate sized things until they will be able to grasp one thing using right hand and transfer it to their left hand

- can now hold their head still to find out whether the object is moving

- can already match the voice to faces

- distinguish male and female

- size constancy

- infants develop the ability to perceive that occluded objects are whole

- social smiling

*4<sup>th</sup> Month:*

- babies can keep their heads erect while being supported in a sitting position

- can now roll-over, accidentally

- begin to reach objects

- begin to coordinate sensory information and grasp objects

- turn toward sounds

*6<sup>th</sup> Month:*

- babies cannot sit without support

- can start creeping or crawling

- could successfully reach for objects in the dark faster than they could in the light

- they can now localize or detect sounds from their origins

- repeat actions that brings interesting results

- cooing

- they can now recognize their name

*7<sup>th</sup> Month:*

- pincer grasps could already manifest

- can start standing

- can now sit independently

*8<sup>th</sup> Month:*

- babies can now sit without help

- can now learn to pull themselves up and hold on to a chair

*10<sup>th</sup> month:*

- can now stand alone

- babbling

*11<sup>th</sup> month:*

- babies can let go and stand alone well

- can now anticipate events

**Toddlerhood**

- early reflexes disappears

- potty training

#### Expected Developmental Milestones during Childhood, Adolescence, and Adulthood

##### Infancy

*1<sup>st</sup> Month:*

- infants can turn their head from side to side
- grasping reflex
- practice reflexes and control them



Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- can now pull a toy attached to a string and use their hands and legs to climb stairs
- can now walk quickly, run, and balance on their feet in a squatting position
- purposefully vary their actions to see results
- explores the world and trial and errors
- can now think about events and anticipate consequences without always resorting to action
- learns numbers
- can now use symbols such as gestures of words
- can now point at a picture of an object while saying its name, demonstrating an understanding that a picture is a symbol of something else
- speak in two-word utterances (telegraphic speech)
- social emotions towards self and others (embarrassment, pride, guilt, empathy etc.)

#### Early Childhood

- can now engage to deferred imitation
- primary teeth is evident
- can now pick up tiny objects using thumb and forefingers
- know the difference between reality and imagination
- begin to use plurals, possessives, and past tense
- can now control movements such as stopping, turning, jumping
- can categorize objects and identify similarities and differences
- can now converse in sentences and may be declarative, negative, interrogative, or imperative
- can recognize facial expressions
- speech is quite adultlike
- can understand the public aspects of emotions
- permanent teeth begins to appear

#### Middle and Late Childhood

- gains skills for team sports
- loses baby teeth
- motor skills improved: they play which usually have socialization involved
- rough-and-tumble play
- need more flexible rules, shorter instruction time, and more free time to practice those older children
- better understanding of spatial concepts, causality, categorization, inductive and deductive reasoning, conservation, numbers
- starts to develop the ability to mentally juggle more concepts at the same time
- development of the ability to regulate attention and can now concentrate longer
- can now use selective attention and inhibitory control

- Children use increasingly precise verbs, simile and metaphor
- Rarely use passive voice
- Understanding of rules of syntax becomes more sophisticated with age
- Sentence structure continue to become more elaborate
- Boys tend to use more controlling statements, negative interruptions, and competitive statements
- Girls phrase their remarks in a more tentative, conciliatory way and are more polite and cooperative

#### Adolescence

- Adult height, weight, and sexual maturity
- growth of secondary sexual characteristics
- menstrual period for women
- peer acceptance
- understanding of abstract concepts
- growth spurt
- A steady increase in white matter, nerve fibers that connect distant portions of the brain, permits faster information and better communication across hemispheres
- Adolescents move away from their reliance on concrete, real-world stimuli, and develop the capacity for abstract thought
- They can now use symbols to represent other symbols, hidden messages, imagine possibilities, create hypotheses
- *Hypothetical-Deductive Reasoning*: methodical, scientific approach to problem solving, and it characterizes formal operations thinking
- Involves ability to develop, consider, and test hypotheses
- Piaget attributed it to a combination of brain maturation and expanding environmental opportunities
- According to David Elkind, the new way of thinking of adolescents, the way they look at themselves and their world, is as unfamiliar to them as their reshaped bodies, and they sometimes feel just awkward in its use
- Adolescents can keep many alternatives in mind at the same time yet may lack effective strategies for choosing them
- Boys are more likely to fail to achieve a baseline of proficiency in reading, mathematics, and science
- Girls do better on verbal tasks that involve writing and language usage
- Boys do better in activities that involve visual and spatial functions helpful in math and science

#### Young Adulthood

- Acceptability of homosexual unions is growing, especially in younger cohorts and in women

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- Emerging adults tend to have more sexual partners than in older age groups, but they have sex less frequently
- *Reflective Thinking*: active, persistent, and careful consideration of information or beliefs
- Continually question facts, draw inferences, and make connections
- Frequently engage in critical thinking
- At approx. 20-25 years of age, the brain forms new neurons, synapses, and dendritic connections, and the cortical regions that handle higher-level thinking become fully myelinated
- *Postformal Thought*: characterized by the ability to deal with inconsistency, contradiction, and compromise
- Draws on intuition and emotion as well as logic to help people cope with situations such as social dilemmas
- Acknowledges that there may be more than one valid way of viewing an issue and that the world is made up of shades of gray
- Traditionally, adulthood was defined by markers such as moving out of the family home, marriage, children, full-time employment, or establishment of career
- Early marriage and family formation are associated with poverty and substance use
- Emerging adults with the highest well-being were those who were not yet married, had no children, attend college, and lived away from their childhood home

### Middle Adulthood

- Middle-Aged people are in their prime
- Individuals who scored the highest in the study of Schaie tended to have high educational levels, flexible personalities, intact families, pursue cognitively complex occupations and other activities, to be married to someone more cognitively advanced, to be satisfied with their accomplishments
- Crystallized Intelligence increase through middle age and often until the end of life
- Mature adults show increasing competence in solving problems in their chosen field
- *Specialized Knowledge or Expertise*: form of crystallized intelligence that is related to the process of encapsulation
- Adults do not usually depend on the brain's information-processing-machinery because some adult's fluid intelligence becomes encapsulated (dedicated in handling specific kinds of knowledge)
- Expert thinking often seems automatic and intuitive
- Such intuitive, experience-based thinking is also a characteristic of Postformal Thought

- An important feature of postformal thought is its integrative nature – adults interpret what they read, see, or hear in terms of its meaning for them
- conscientiousness is the highest maybe due to result of work experiences

### Old Age

- Older adults tend to make the most of their abilities, often exploiting gains in one area to offset declines in another
- Increases in agreeableness, self-confidence, warmth, emotional stability, and conscientiousness and declines in neuroticism, social vitality, and openness to experience
- they tend to seek out activities and people that give them emotional gratification
- Older adults tend to use more emotion-focused coping than younger people
- Older adults are more religious than younger adults
- Older adults conserve resources by selecting meaningful goals, optimizing the resources they have to achieve it, and compensating for the losses by using resources in alternative ways to achieve their goals

### Issues involved in decisions about Death

- **Brain Death** – neurological condition which states the person is brain dead when all electrical activity of the brain has ceased for a specific period of time
  - Higher portions of the brains dies sooner than lower parts which facilitates breathing and heartbeat
  - That is why your brain could be dead but you still have heartbeat for the mean time
- **Euthanasia** – good death, intended to end suffering or to allow terminally ill person to die with dignity
  - *Passive*: involves withholding or discontinuing treatment that might extend the life of a terminally ill patient such as life support
  - *Active*: “mercy killing” involves action taken directly or deliberate to shorten life
- **Advance Directive** – contains instructions for when and how to discontinue futile medical care
  - Living will or a more formal legal document called a durable power of attorney
  - *Durable Power of Attorney*: – appoints another person if the maker of the document becomes incompetent to do so
- **Assisted Suicide** – physician or someone else helps a person bring about a self-inflicted death
- **Suicide** – self-inflicted death in which the person acts intentionally, directly, and consciously

Source: Papalia (2021), Santrock (2018), Sigelman-Rider (2012)

- **Death Seekers** – clearly intend to end their lives at the time they attempt suicide
  - May last only a short time
- **Death Initiators** – clearly intent to end their lives, but they act out of a belief that the process is already under the way and that they are simply hastening the process
- **Death Ignorers** – do not believe that their self-inflicted death will mean the end of their existence
- **Death Darers** – experience mixed feelings, or ambivalence, about their intent to die, even at the moment of their attempt, and they show this ambivalence in the act itself
  - Their risk-taking behavior does not guarantee death
- **Subintentional Death** – a death in which the victim plays an indirect, hidden, partial, or unconscious role
- Suicide is officially the 11<sup>th</sup> cause of death in US
- **Suicidal Ideation** – thinking seriously about suicide
- **Suicidal Plans** – formulation of a specific method for killing oneself
- **Suicidal Attempts** – the person survives from attempts
- Emile Durkheim's Suicide Types:

<b>Altruistic</b> – formalized suicides; dishonor to self, family, or society
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<b>Egoistic</b> – loss of social supports as an important provocation for suicide
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<b>Anomic</b> – result of marked disruptions, such as sudden loss of job
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<b>Fatalistic</b> – loss of control over one's own destiny
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- Freud believed that suicide indicated unconscious hostility directed inward to the self rather than outward to the person or situation causing the anger
- If a family member committed a suicide, there is an increased risk that someone else will also
- Low levels of serotonin is associated with suicide and with violent suicide attempts (low levels of serotonin is linked with impulsivity, instability, and the tendency to overreact to situation)
- The stress of a friend's suicide or some other major stress may affect several individuals who are vulnerable because of existing psychological disorders
- **Hopelessness** – pessimistic belief that one's present circumstances, problems, or mood will not change
- **Dichotomous Thinking** – viewing problems and solutions in rigid either/or terms
- Common triggering factors:
  - ✓ Stressful events
  - ✓ Mood and thought changes

- ✓ Alcohol and other drug use
- ✓ Mental disorders
- ✓ Modeling

end

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***Congratulations for reaching the end of this reviewer! <3***

*Remember to **take rest** if you need to and **be less harsh** to yourself. **Reward yourself**, you deserve it. You **can never learn everything** but at least you still did learn something. **Progress is progress**. The most important thing is **you will get there!***

***Claim that license!***

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***Congratulations, Future RPm!***