Book Notes:

Definitions:
Chapter 4
Genes – Nature
Environment – Nurture

Behavior Geneticists: Study differences and weigh the effects of heredity and environment

Genomes – Complete instructions for making an organism. Consists of all genetic material in chromosomes.
Chromosomes – 23 Donated by your mother (Egg) and 23 Donated by Father (Sperm). Composed of a coiled chain of DNA.
Genes – Small segments of DNA molecules form the 23 Chromosomes. Genes can be active (Expressed) or Inactive.

Twin Adoption
Identical Twins: 60% chance to gain the same disease
Fraternal Twins: 30% chance to gain same disease.

Gene Influence on Emotional Instability:
- If you are a fraternal twin who divorced, odds of your twin divorcing go up 1.6 times.
- Identical Twin who divorces odds go up 5.5 times.
    Results: 50% divorce risk is attributable to genetic factors.

Separated Twins: Identical
Jim and Jim were the same. Voice recognition impossible.
- Same dog name almost everything.

Oskar and Jack. One was a Nazi and Other was Jew. Were very similar in habits and preferences.

Separated Twins: Fraternal
- Separated twins are more alike if identical than fraternal
- Noted that virtual twins (same age, sex, biologically unrelated siblings) much more dissimilar.

Biological versus Adoptive Relatives
Genetic Relatives –Biological Parents and siblings
Environmental Relatives – Adoptive parents and siblings.

Adoptees are more similar to their biological parents than their caregiving adoptive parents in traits of Extraversion and Agreeableness.

Environment shared by siblings has virtually no discernible impact on personality.

Families do affect their children's attitude, values, manners, faith, and politics.

Ex. A pair of adopted children or identical twins will share religious beliefs.

Temperament and Heredity

- Infant's temperaments is measured in their emotional excitability. Whether reactive, intense, and fidgety, or easygoing, quiet, and placid.
    - Difficult babies – Irritable, intense, and unpredictable
    - Easy babies – cheerful, relaxed, and predictable in sleeping and feeding.
    - Slow to warm up – resist or withdraw from new people and situations.
- Heredity predisposes temperament differences.
- Our biologically rooted temperament helps form our enduring personality.

***Heritability

Behavior geneticists can mathematically estimate heritability of a trait to the extent which variation among individuals can be attributed to their differing genes.

Ex. Inheritability of Intelligence is 50% does not mean you gain 50% of your intelligence through genetics. It just explains 50% of the observed variation.

Heritability increases when environment differences decrease.

Group Differences

- Putting groups in a new social context can change their aggressiveness.
    - Ex. Todays peaceful Scandinavians are ancestors to the vicious Vikings

Nature Versus Nurture

- The most important similarity among humans is our adaptive capacity. Behavioral hallmark or ability.
- Our genes are self-regulating
    - Ex. They are not blueprints leading to the same result but rather change to the context they are developing in.
- Person to person differences are influenced more by genetic and environmental influences:
    - Eating disorders are genetically influenced to a degree, but culture creates the most influencing factor because it is primarily a contemporary western phenomenon.

Gene-Environment Interactions

Genes and your environment interact and this is immensely important to development.

- Environment triggers gene activity. Interaction
- Evocative interactions explain why identical twins reared in different families recall their parents warmth as remarkably similar.
- Fraternal twins have a much more differing recollection of their early family life even if raised in the same family.

- Ex. Children experience parent interactions differently based on their predisposed qualities.

The New Frontier: Molecular Genetics

- New frontier of behavior-genetic research draws on "bottom-up" molecular genetics as it seeks to identify specific genes influencing behavior.
- The goal of molecular behavior genetics is to find some of the many genes that influence normal traits such as sexual orientation, and extraversion.

Evolutionary Psychology: Understanding Human Nature

- Evolutionary Psychologists focus mostly on what makes us so much alike as humans. They use Darwin's principle of natural selection to understand the roots of behavior and mental processes.

Chapter 5

Definitions:

Developmental Psychology – How people are continually developing – physically, cognitively, and socially from infancy to old age.

Research Centers on 3 Major Issues:

1. Nature/Nurture: How do our inheritance and experience influence our development?
2. Continuity/Stages: Is development gradual, continuous, or through a sequence of separate stages
3. Stability/Change: Do our early personality traits persist through life or do we differ as we grow.

Prenatal Development

- Fewer than half of all fertilized eggs, called Zygotes survive beyond the first two weeks.
- Zygotes inner cells become the embryo and over 6 weeks organs begin to function.
- Placenta filters our many potentially harmful substances.

The Competent New Born

- Newborns come equipped with automatic responses ideally suited for survival.
- One technique used to answer such question is the simple form of learning called Habituation
    - A decrease in responding with repeated stimulation.
- Novelty Preference Procedure: Show infant's images of cats or dogs. The children focus on face first since we are predisposed to look at faces than bodies.
- As newborns, we turn our heads in the direction of human voices. (Social responsiveness)

Physical Development

Infant muscle and nervous system development is the same universally.

- Genes play a major role in development of motor skills.
- Maturation – Including the rapid development of the cerebellum at the back of the brain. Creates our readiness to learn to walk about the age of one.
    - Identical Twins walk on nearly the same day.

Maturation and Infant Memory

Infantile Amnesia – Average age the first memory of the first memory is 3.5 years old.

- Although our conscious memory cannot recall our physiological signs show that our nervous system still remembers those previously met before our 4-5 years.

Cognitive Development

Cognition – Refers to all mental activities associated with thinking, knowing, remembering and communicating.

Piagets Theory – Children reason completely different illogical ways than something that would be fairly evident to adults. Develops in a series of stages in an upward march from simple reflexes to adult abstract reasoning power.

Driving Force behind our intellectual progress is an unceasing struggle to make sense of our experiences.

- The maturing brain tries to build Schemas: concepts or mental molds into which we pour our experiences.
- How we use our Schemas:
    1. First we assimilate new experiences – interpret in terms of our current understandings (schemas).
    2. Then we accommodate – Our schemas to incorporate information from new experiences.

Self Concept

Childhood's major social achievement is a positive sense of self: An understanding and assessment of who they are.

Ex. Dabbed make up on the baby at about 15-18months children begin to touch their own noses when they see the red spot. So they have schemas of how their face should look and wonder why spot is there.

Parenting Styles

1. Authoritarian – Parents impose rules and expect obedience.
2. Permissive – Parents submit to their children's desire and make few demands.
3. Authoritative – Parents are both demanding and responsive. They exert control by rules and enforce them. But they also explain reasons for rules.

Adolescence – Years spent morphing from child to adult. Starts with physical beginnings of sexual maturity and ends with social achievement and independent adult status.

- Today's developmental psychologist sees development as lifelong
- Begins with puberty, which intensifies moods.

Physical Development

- Puberty creates primary sex characteristics – Reproductive organs and external genitalia develop dramatically.
- Secondary sex Characteristics – nonproductive traits such as breasts and hips in girls, and deepened voice in boys, pubic and underarm hair in both sexes.

Cognitive Development as an Adolescent

Reasoning Power

Most achieve the intellectual summit Piaget calls Formal Operation when they become capable of abstract reasoning.

- During the early years of teens reasoning is often self-focused.

Developing Morality

- Two crucial task of adolescence are discerning right from wrong and developing character – the psychological muscles for controlling impulses.
- Piagets Theory on Morals – Childrens moral judgments build on their cognitive development.
- Kohlberg Theory on Morals – Sought to describe the development of moral reasoning, his answers derived three basic levels of moral thinking:
    1. Preconventional Morality (Before 9) – Most morality focuses on self interest: obey rules to avoid punishment.
    2. Conventional Morality (Early Adolescence) – Focuses on caring for others and upholding laws and social rules.
    3. Postconventional morality – Actions are judged right because they flow from peoples rights or self-defined basic ethical principles.
- Most people share the feeling that harm caused by action is worse than harm caused by failing to act.

Social Development as an Adolescent

- Erikson: Each psychosocial task occurs in each stage of life.
    - Young children and Trust, then Independence, then Initiative.
    - School Age Children and Competence, feeling able, and productive
    - Adolescents task – synthesize past, present, and future possibilities into a clearer sense of self or search for Identity.
- Erikson's Stages of Psychosocial Development
    1. Infancy (to 1 year) – Issue = Trust vs. Mistrust.
    2. Toddlerhood (1 to 3) – Issue = Autonomy vs. Shame and Doubt
    3. Preschool (3 to 6) – Issue = Initiative vs. Guilt
    4. Elementary School (6 to puberty) – Issue = Industry vs. Inferiority

5. Adolescence (Teen into 20s) – Issue = Identiy vs. Role Confusion
6. Young Adult (20s to 40s) – Issue = Intimacy vs. Isolation
7. Middle Adulthood (40s to 60s) – Issue = Generativity vs. Stagnation
8. Late Adulthood (Late 60s and Up) – Issue = Integrity vs. Despair

Identity – Resolution and definition that unifies the various selves into a consistent and comfortable sense of who one is.

- Social Identity forms around their distinctiveness.
- Erikson contends that adolescent identity is followed by young adulthood by developing a capacity for intimacy.

Adolescence is a time of diminishing parental influence and increasing peer influence.

Aging and Intelligence

Cross-Sectional Study: People of different ages are compared with one another.
Longitudinal Study: Same people are restudied over a long period.

Crystallized Intelligence: Accumulated knowledge as reflected in vocabulary and analogies test increase up to old age.
Fluid Intelligence – Our ability to reason speedily and abstractly as when solving novel logic problems decreases slowly up to age 75 or so.

Social Development in Adulthood

- Midlife transition is a crisis regret or feeling struck down by life.
- Social Clock – The right time to have a major change varies from era to era and culture to culture.

Adulthood Commitments
Two Basic Aspects dominate our Adulthood

1. Intimacy – Form close relationship
2. Generativity – Being productive and supporting future generations.

Chapter 14

Medical Model: a mental illness needs to be diagnosed based on symptoms and cured through therapy. Gain Credibility: Brain structure and biochemistry.

Biopsychosocial Approach: All behavior arises from interation of nature (genetic and physiological factors) and nurture (past and present experiences. This approach views environment, interpretation, and habits.

Anxiety Disorders
Marked by distressing, persistent nxiety or dysfunctional anxiety-reducing behaviors.

1. Generalized Anxiety Disorder: In which a person is unexplainably and continually tense and uneasy.
    a. Anxiety is free-floating. 2/3 women.
2. Panic Disorder: Person experiences sudden episodes of intense dread.
    a. Anxiety tornadoes. Minute long episode something terrible event.
3. Phobias: Person feels irrationally afraid of a specific object or situation.
    a. Agoraphobia: Fear or avoidance of situation
4. Obsessive-compulsive disorder: In which a person is troubled by repetitive thoughts or actions.
5. Post-Traumatic Disorder: Person has lingering memories or nightmares weeks after an event.
    a. Unable to forget the most traumatic experience in life.
    b. Post-Traumatic Growth: Increased appreciate of life.

- Genes matter and seem predisposed to anxiety.
- Somatoform Disorders: Medically unexplained illness
    - Conversion Disorder: Anxiety presumably is converted into a physical symptom.
    - Hypochondriasis: People interpret normal sensations as symptoms of a dreaded disease.

<u>Mood Disorders</u>