

## Chapter 1 and Appendix – Methodology, Approaches, and Statistics

### **Key Concepts**

(stuff/vocab you must know)

- What is psychology?
- Methodology & Research
  - Experiment v. Correlation study (causation v. correlation)
  - Hypothesis
  - Operational definition
  - Independent & dependent variables
  - Collecting data (surveys, naturalistic observation, experimentation, case studies – advantages & disadvantages for each)
  - Experimental group v. control groups
  - Generalizability
  - Confounding variables
  - Experimental pitfalls
    - experimenter bias
    - hindsight bias
    - social desirability bias
    - wording effects
    - false consensus effect
    - overconfidence
    - ethnocentrism
    - self-fulfilling prophecy
    - halo effect
    - Hawthorne effect
    - placebo effect
    - sample size
  - Double/single blind
  - Ethics in research (know least ethical studies/experiments)
    - IRB
    - informed consent
    - deception
    - coercion
    - confidentiality/anonymity
    - risk
    - debrief
    - opt out
  - Statistics
    - measures of central tendency (mean, median, mode)
    - standard deviation
    - normal curve v. skewed distribution
    - empirical rule (68, 95, 99.7)
    - correlation coefficient
    - positive v. negative correlation
    - reliability v. validity
- Structuralism v. Functionalism
- Wundt
- Schools/approaches to psychology (industrial-organizational psychology)
  - Psychoanalytic/psychodynamic – unconscious conflict or anxiety
  - \*\*Behavioral – learned through reinforcement, punishment, association, extinction
  - Biological/biomedical – genetics, body/brain chemistry
  - Socio-cultural – society, peers, family structure, gender influences behavior
  - Cognitive – thought, memory, perception
  - Humanistic – needs, self-esteem, self-actualization, free will
  - Gestalt & evolutionary

## Chapter 2 – Brain and Behavior

### **Key Concepts**

(stuff/vocab you must know)

- Studying nature v. nurture (twin studies, adoption studies)
  - heritability
- Nervous System
  - The neuron
    - Structure – dendrite, axon, myelin sheath, axon terminal
    - Action potential
      - all or nothing
      - excitatory/inhibitory
      - depolarization
      - reuptake
      - agonists
    - neurotransmitters
      - acetylcholine, dopamine, serotonin, norepinephrine, GABA, endorphins
  - ANS – sympathetic v. parasympathetic
- Brain structure
  - Hindbrain – medulla, reticular formation, cerebellum, pons
  - Forebrain – thalamus, hypothalamus (lateral, ventromedial), limbic system (amygdala, hippocampus), basal ganglia
  - Corpus callosum,
  - Cortex – frontal lobe, parietal lobe, temporal lobe, occipital lobe, association cortex
  - Plasticity
  - Aphasia
  - Studying the brain (EEG, CAT, PET, MRI, fMRI)
- Left and Right hemispheres of the brain
  - Localization of function
  - Hemispheric specialization
  - Roger Sperry & split brain patients
- Glands & hormones
  - Pineal, pituitary, adrenal, thyroid, pancreas

## Chapter 3 – Sensation and Perception

### Key Concepts

(stuff/vocab you must know)

- Sensation v. Perception
- **Thresholds**
  - Absolute
  - Difference (JND)
    - Weber's Law – just noticeable difference is proportional to the strength of the original stimulus
  - Subliminal
- **Signal Detection Theory**
- Sensory adaptation
- **Transduction**
- Visual System – cornea, lens, iris, pupil, **retina (cones & rods)**, bipolar cells, ganglion cells, blind spot, occipital lobe (visual cortex)
  - Feature detectors – Hubel & Wiesel
- Theory of color vision, color blindness, & afterimage effect
  - **Trichromatic theory** (Young-Helmholtz) - red, green, blue
  - **Opponent process theory** – red-green, black-white, blue-yellow
- Auditory System – outer ear, auditory canal, tympanic membrane, oval window, cochlea, basilar membrane, temporal lobe (auditory cortex)
  - Sound localization – interaural time difference & interaural intensity difference
  - Distinguishing pitch – place theory/frequency theory
  - Deafness – conduction deafness, nerve deafness
- Smell, taste, touch
  - **Gate control theory**
- **Vestibular v. Kinesthesia**
- Selective attention
  - Cocktail party phenomenon
  - Inattention blindness
- Gestalt Principles
  - **Bottom-up processing, top down processing**, figure-ground, law of proximity, law of similarity, law of continuity, law of closure, law of fate
- Depth perception & visual cliff experiment (Gibson)
- Binocular cues
  - **Retinal disparity, convergence**
- Monocular cues
  - Size, interposition, clarity, texture gradient, height, motion, liner perspective, shadowing
- Agnosia
- Illusions
  - **Stroboscopic v. phi phenomenon**
  - Purkinje phenomenon

## Chapter 4 – Consciousness

### Key Concepts

(stuff/vocab you must know)

- Levels of consciousness
- Circadian rhythm
- Sleep cycles
  - NREM (stages 1-4) v. REM sleep (paradoxical sleep)
  - 90 minute cycles (4-5 per night)
  - Sleep spindles occur in stage 2
- Restorative value of sleep
- Sleep deprivation & REM rebound
- Sleep disorders – insomnia, hypersomnia, narcolepsy, sleep walking (somnambulism), sleep apnea
- Dream theories
  - Psychoanalytic/psychodynamic theory, activation-synthesis theory, cognitive theory
- Hypnosis
  - Posthypnotic suggestion, posthypnotic amnesia, & uses
  - Hilgard's Dissociation theory
- Psychoactive drugs [blood-brain barrier]
  - agonist (mimic & enhance neurotransmitters effect), antagonist drugs (mimic & inhibit neurotransmitters effect)
  - withdrawal, tolerance, physiologically addiction, psychologically addictive
  - depressants, stimulants, hallucinogens

## Chapter 5 – Learning

### Key Concepts (stuff/vocab you must know)

- **Classical conditioning** – associative learning
  - US, UR, CS, CR
  - Extinction, stimulus discrimination, spontaneous recovery
  - Pavlov
  - Watson
    - Little Albert & stimulus generalization
  - Garcia
    - Garcia effect, conditioned taste aversion
- **Operant Conditioning** – a given consequence will determine the probability of a repeated response
  - Positive reinforcement, negative reinforcement (avoidance learning, escape learning), punishment
  - Thorndike – Law of effect
  - Skinner – shaping
  - Premack - Premack principle
  - Schedules of reinforcement – FI, VI, FR, VR
  - Behavior modification – time out & token economy
  - Chaining, extinction
- Cognitive learning
  - Kohler – insight w/ monkeys
  - Tolman – latent learning & mental map
  - Bandura – Bobo doll experiment,
    - Modeling, social learning theory, observational learning theory

## Chapter 7 – Cognition

### Key Concepts (stuff/vocab you must know)

- **Concept formation**
  - Rosch – prototype & “fuzzy concepts”
  - Schemas – concept categories (Piaget)
- Problem solving – algorithm, heuristics, analogies
- Creativity – convergent & divergent thinking
- **Mental roadblocks**
  - Mental set
  - Functional fixedness
  - Gambler’s fallacy
  - Belief in small numbers
  - Availability heuristics
  - Representative heuristics
  - Anchoring heuristics
  - Overconfidence
  - Confirmation bias/ Belief perseverance
  - Memory construction
  - Framing
  - Fixation
  - Fundamental attribution error
- Language development
  - Morphemes, phonemes
  - Miller & Chomsky – language acquisition device
  - Vygotsky – scaffolding, guided participation, ZPD
  - Milestones to language development – telegraphic speech, overgeneralized speech
  - Chomsky – transformational grammar
  - Culture & language – Whorf’s linguistic relativity hypothesis, Rosch’s New Guinea study

## Chapter 6 – Memory

### Key Concepts

(stuff/vocab you must know)

- Information processing approach to memory
  - Sensory memory (iconic & echoic) (thalamus)
  - Encoding
  - Short term memory (hippocampus)
    - Miller – 7 plus or minus 2
    - Ways to hold info in STM & move to LTM
      - Maintenance rehearsal v. elaborative rehearsal
      - Chunking
      - Mnemonic devices
      - Serial position effect
      - Von Restorff effect
      - Method of loci
  - Long term memory (frontal lobe)
    - Episodic, semantic/declarative, procedural
    - Long term potentiation
    - State dependent memory v. mood congruent memory
    - Retrieval cues – recall v. recognition
- Forgetting
  - Encoding
    - Info never encoded, too much stimuli, Nickerson/Adams, bias
  - Storage
    - Short term memory dump, encoding difficulties, interference [proactive v. retroactive PORN], Amnesia [retrograde v. anterograde (HM)]
    - Ebbinghaus' forgetting curve (decay)
  - Retrieval
    - Implicit (repressed) v. explicit memory
    - Loftus' False memories (constructivist theory, misinformation effect, confabulation, source monitoring error, imagination effect)
    - Priming tasks v. motivated forgetting
    - interference [proactive v. retroactive PORN], Amnesia [retrograde v. anterograde (HM)]
    - Ebbinghaus' forgetting curve

## Chapter 9 – Motivation

### Key Concepts

(stuff/vocab you must know)

- Theories of motivation
  - Instinct theory
  - Drive theory - drive reduction theory, homeostasis, incentive
  - Optimum arousal theory
    - Yerkes-Dodson Law
  - Cognitive theory – intrinsic v. extrinsic motivation, overjustification effect, cognitive dissonance
    - Expectancy theory
  - Humanistic theory
    - Maslow's hierarchy of needs – physiological, safety, social/belonging, self-esteem, self-actualization
  - Motives in conflict – approach-approach conflict, avoidance - avoidance conflict, approach-avoidance conflict, double approach-avoidance conflict
- Hunger
  - Glucostatic approach, hypothalamus, set point, basal metabolic rate, fat cells, modeling, reinforcement, emotional states,
- Sexual behavior
  - Kinsey
  - Masters and Johnson
    - Sexual response cycle
  - Sexual orientation
    - Biological correlates
- Emotion
  - LeDoux's dual pathway
  - James-Lange theory
  - Cannon-Bard theory
  - Schachter-Singer two factor theory
  - Anger & happiness
- Attraction
  - Proximity, mere exposure effect, physical attraction, similarity, arousal, equity, self-disclosure
- Stress and coping
  - Walter Cannon & fight or flight response (sympathetic NS)
  - Hans Selye – general adaptation syndrome (alarm, resistance, exhaustion)
  - Optimism v. pessimism

## Chapter 8 – Intelligence

### Key Concepts

(stuff/vocab you must know)

- Theories of intelligence
  - Binet –
    - “mental age” and chronological age should match if not, more or less intelligence
    - Developed the first IQ test
  - Spearman & **G factor** (general intelligence)
  - Cattell & two sub-factors of G
    - **Fluid v. crystallized intelligence**
  - Sternberg & **triarchic theory of intelligence**
    - Analytic, creative, & practical
  - Howard Gardner & **multiple intelligences**
    - Linguistic, logical-mathematical, musical, bodily-kinesthetic, spatial, interpersonal, intrapersonal, naturalistic
  - Goleman & EQ
  - **Heredity v. environment** (twin studies)
- Intelligence tests
  - Binet
  - Terman – revised Binet’s - Stanford-Binet Intelligence test
  - Wechsler – WAIS (Wechsler Adult Intelligence Scale) not based on mental or chronological age but uses a normal curve to calculate IQ (only test developed for children)
  - **Aptitude v. achievement tests**
- Principles of test construction
  - **Standardization** – norms have been established to compare results
  - **Reliability** – consistent results
  - **Validity** – repeatable results
- Criticisms of test validity
  - Self-fulfilling prophecy (Rosenthal & Jacobson)
  - Halo effect
  - Flynn effect

## Chapters 10 & 11 – Development

**Key Concepts**  
(stuff/vocab you must know)

- **Nature v. nurture**
  - Continuity v. discontinuity
- Researching development – **longitudinal v. cross sectional studies**
- Development
  - Maturation
  - Critical period
  - Prenatal & infant development
    - Teratogens
    - Reflexes
    - Frantz’s viewing box & perception
    - Visual cliff
  - Language development
    - Morphemes, phonemes
    - **Miller & Chomsky**– language acquisition device
    - **Vygotsky** – scaffolding, guided participation, ZPD
    - Milestones to language development – telegraphic speech, overgeneralized speech
    - Chomsky – transformational grammar
  - Attachment & **Mary Ainsworth** (strange situation)
    - Secure attachment, insecure attachment, insecure-avoidant, disorganized
  - Contact comfort & **Harlow** (rhesus monkeys raised with wire mothers, wire only had food, the cloth mother did not)
  - **Piaget** & cognitive development
    - Schema, assimilation, accommodation
    - Sensorimotor, preoperational, concrete operational (conservation), formal operational stages
    - Theory of the mind
  - **Kohlberg** & moral reasoning
    - Preconventional – stages 1-2 (punishment & fairness)
    - Conventional – stages 3-4 (expectations of what is good, rules)
    - Postconventional – stages 5-6 (supreme court, higher moral thinking)
    - Gilligan’s criticism
  - **Erikson** and social development
    - Infancy – trust v. mistrust
    - Toddlerhood – autonomy v. shame/doubt
    - Preschooler – initiative v. guilt
    - School age – industry v. inferiority
    - Adolescence – identity v. identity confusion
    - Young Adulthood – intimacy v. isolation
    - Adulthood – generativity v. self-absorption
    - Late adulthood – integrity v. despair
  - **Parenting styles**
    - Authoritarian, permissive, authoritative
  - **Kubler-Ross** – stages [denial, anger, bargaining, depression, acceptance]
  - Alzheimer’s

## Chapter 12 – Personality

### Key Concepts

(stuff/vocab you must know)

- Personality Theory
  - **Nomothetic v. Idiographic approach**
  - Sheldon's somatotypes (ectomorph, mesomorph, endomorph)
  - **Freud** (psychoanalytic)
    - Eros v. thanatos
    - Iceberg – conscious, preconscious, unconscious
    - Decision making – id, ego, superego
    - Defense mechanisms – repression, denial, displacement, projection, regression, reaction formation, rationalization, intellectualization, procrastination, sublimation, compensation, identification
    - Psychosexual development – oral stage, anal stage, phallic stage (Oedipus complex), latency stage, genital stage
  - Jung (psychoanalytic)
    - Extrovert/introvert, thinking/feeling, sensing/intuitive, judging/perceiving
    - Ego, personal unconscious, complexes, collective unconscious, archetypes
  - Adler (psychoanalytic)
    - Superiority complex v. inferiority complex
    - Birth order theory
  - **Horney** (psychoanalytic)
    - Basic anxiety v. basic hostility, Criticism of Freud
  - **Maslow** (humanistic)
    - physiological, safety, social/belonging, self-esteem, self-actualization
  - **Rogers** (humanistic)
    - Incongruence between real & ideal self
  - Eysenck (trait theory)
    - Extroversion v. introversion, stability v. instability
  - Allport (trait theory)
    - Cardinal traits, central traits, secondary traits
  - **The Big Five** (trait theory)
    - Openness, conscientious, extroversion, agreeableness, neurotic (OCEAN)
  - Kelly (cognitive)
    - Personal construct theory
  - **Rotter** (cognitive)
    - External/internal locus of control
  - Seligman (cognitive) – learned helplessness
  - **Bandura** (socio-behavioral-cognitive)
    - Reciprocal determinism
    - High/low self-efficacy
  - **Erikson**
    - Infancy – trust v. mistrust
    - Toddlerhood – autonomy v. shame/doubt
    - Preschooler – initiative v. guilt
    - School age – industry v. inferiority
    - Adolescence – identity v. identity confusion
    - Young Adulthood – intimacy v. isolation
    - Adulthood – generativity v. self-absorption
    - Late adulthood – integrity v. despair
- Personality tests
  - **Objective tests** (Myers-Briggs, MMPI-2)
  - **Projective tests** (Rorschach, TAT)
  - Behavioral assessment
  - Neuropsychological assessment
  - Naturalistic observation
  - Criticisms of tests & theories– not reliable, The Barnum Effect

## Chapter 15 – Abnormal Behavior

### **Key Concepts**

(stuff/vocab you must know)

- **Defining abnormality**
  - Atypical, social unacceptable, distressing, maladaptive, results from faulty cognitions
- **Causes of abnormality**
  - Psychoanalytic – repressed conflict/anxiety in the unconscious, conflict between the id, ego superego
  - Humanistic – person’s feelings, self-esteem, self-concept, creating meaning in life, real v. ideal self, striving for self-actualization
  - Cognitive – faulty logic, illogical and negative thinking
  - Behavioral – is learned through classical conditioning (associations), reinforcement, punishment, modeling
  - Biological – hormonal or neurotransmitter imbalances, differences in brain structure, genetic predispositions
- **DSM-IV**
  - Diagnostic criteria for psychological disorders
  - Axis 1 – clinical disorders (such as depression)
  - Axis 2 – personality disorders
  - Axis 3 – general medical disorders (such as diabetes)
  - Axis 4 – psychological and environmental problems (such as the death of a family member)
  - Axis 5 – global assessment of a person’s overall functioning which is ranked from 1 (suicidal) to 100 (happy, productive)
- **Anxiety Disorders**
  - Generalized anxiety disorder
  - Post traumatic stress disorder
  - Panic disorder
  - Phobias (social phobia, agoraphobia, obsessive-compulsive disorder)
  - Causes of anxiety
- Somatoform disorders
  - Conversion disorder, Hypochondriasis
- **Mood disorders**
  - Major depression
  - Manic depression
  - Bipolar depression
  - Seasonal affective disorder (SAD)
  - Causes of depression
- **Personality disorders**
  - Narcissistic personality disorder
  - Antisocial personality disorder
  - Obsessive compulsive personality disorder
  - Borderline personality disorder
- Dissociative Disorders
  - Dissociative amnesia (repression), Dissociative fugue, **Dissociative identity disorder**
- **Schizophrenia**
  - Positive symptoms (hallucinations, delusions, false beliefs, thought insertion, disorganized thinking & speech) and negative symptoms (loss of motivation, poverty of speech, disturbance in emotion, psychomotor disturbances)
  - Causes of Schizophrenia
    - Genetic basis
    - Dopamine hypothesis
    - Diathesis-stress model – people inherit a predisposition & stress can trigger episodes
- **Rosenhan Study** – positive & negative consequences of diagnostic labeling

## Chapter 16 – Therapy

### **Key Concepts**

(stuff/vocab you must know)

- **Psychoanalytic approach**
  - Aim: psychoanalysts try to bring the repressed feelings into conscious awareness where the patient can deal with them
  - Techniques: insight therapy, free association, hypnosis, resistance, transference, countertransference, dream analysis, symptom substitution
- **Humanistic approach**
  - Aim: to boost self-esteem by helping people grow in self-awareness and self-acceptance as well as make the client responsible for his or her own change
  - Techniques: **Client centered therapy** (Rogers)
    - Active listening, unconditional positive regard
- **Behavioral approach**
  - Aim: applies learning principles to eliminate unwanted behavior or abnormal behaviors and acquire desirable behaviors in their place
  - Techniques:
    - Classical conditioning
      - Counterconditioning, **systematic desensitization**, in vivo desensitization, virtual reality exposure therapy, adverse conditioning, implosive therapy, flooding
    - Operant conditioning
      - Token economy, behavior modification, time-out
    - Modeling
- **Cognitive approach**
  - Aim: focuses on changing a client's behavior by changing his or her thoughts and perceptions through a combination of substituting healthy thoughts for negative thoughts and beliefs and changing disruptive behaviors in favor of healthy behaviors
  - Techniques:
    - **Rational emotive therapy** (Ellis)
    - Beck's approach
- Group and family therapy
  - Aim: group members can be useful models of behavior for one another and can provide mutual reinforcement and support
  - Techniques:
    - Family therapy, group therapy
- **Biomedical therapies**
  - Techniques:
    - ECT (depression only)
    - Drug therapies
      - Antimanic (lithium)
      - Antidepressants (Prozac, Paxil)
      - Antianxiety (Xanax, Buspar)
      - Antipsychotic (Thorazine, Clozaril, Risperdal, Halcion)

## Chapter 13 – Social Psychology

**Key Concepts**  
(stuff/vocab you must know)

- **Attitude development**
  - Representative heuristics
  - Availability heuristics
  - Anchoring heuristics
  - Framing
- **Compliance strategies**
  - Mere exposure effect
  - Foot-in-the-door technique
  - Door-in-the-face technique
  - Ask and you shall be given technique
  - Lowballing technique
  - Modeling
  - Incentive technique
  - Elaboration likelihood model (central v. peripheral route to persuasion)
- Resistance to persuasion
  - Belief perseverance
  - **Cognitive dissonance**
  - Self perception theory
- **Stanford Prison Experiment** – Zimbardo
  - Role theory, **deindividuation**, anonymity
- **Attributions**
  - **Fundamental attribution error**
  - Actor-observer effect
  - Self serving bias
  - False consensus effect
  - Just world effect
  - Self-fulfilling prophecy
  - Halo effect
- **Prejudice**
  - Stereotypes
  - Discrimination
  - Racism
  - Ethnocentrism
  - Vivid cases
  - **Muzafer Sherif's Robber's Cave Experiment**
    - In-group v. out-group bias
    - Contact theory using superordinate goals
- **Social Influence**
  - **Solomon Asch experiment & conformity**
  - Social facilitation
  - Social loafing
  - Group polarization & group think
  - **Milgram Experiment & obedience**
  - Darley & Latene & prosocial behavior
    - Altruism, bystander apathy, diffusion of responsibility, pluralistic ignorance
- Attraction
  - Proximity, mere exposure effect, physical attraction, similarity, arousal, equity, self-disclosure
- **Motives in conflict**
  - approach-approach conflict, avoidance - avoidance conflict, approach-avoidance conflict, double approach-avoidance conflict