# Personality

## Psychoanalytic

- Freud’s psychosexual theory
  - Structure: id (pleasure principle), ego (reality principle), superego (morals, ideals)
  - Levels of awareness: conscious, preconscious, unconscious
  - Development: oral, anal, phallic (Oedipal complex, penis envy), latency, genital
    - Identification
    - Fixations
  - Defense mechanisms - reduce anxiety
    - Repression (primary)
    - Regression
    - Reaction formation
    - Rationalization
    - Displacement
    - Sublimation
    - Projection
    - Denial
- Psychoanalysis
- Dream analysis (latent vs. manifest)
- Neo-Freudians
  - Adler — social, not sexual tensions
    - Birth order, inferiority complex
  - Horney — rejected penis envy idea
  - Carl Jung — collective unconscious, archetypes
- Assessment
  - Projective tests
    - Rorschach
    - TAT - Thematic Apperception Test
  - Draw-a-person
  - Sentence completion
- Evaluation:
  - Repression often not shown (vivid memory often results after trauma)
  - Terror management theory

## Humanism

- Maslow — self-actualization
- Hierarchy of needs
- Carl Rogers — person-centered
- Genuineness
- Unconditional positive regard
- Empathy
- Ideal self

## Trait theory

- Allport (student of Freud)
- Eysenck — unstable/stable; introverted/extroverted temperament
- MMPI (used factor analysis, empirically derived)
- Cattell’s 16PF
- Costa & McCrae (Big 5)
  - OCEAN (openness, conscientiousness, extraversion, agreeableness, neuroticism)
- Person-situation controversy
  - Walter Mischel — emphasizes power of situational factors
- Expressive style — thin slices
- Barnum effect — astrology, etc.

## Social-cognitive

- Reciprocal determinism — interplay of
  - Personal factors/internal cognition
  - Behavior
  - Environment
- Bandura
  - Personality influenced by observational learning, outside influences (Bobo doll study)
  - Self-efficacy (belief in ability to do things that lead to positive outcomes)

## The self

- Hazel Markus — “possible selves”
- Spotlight effect
- Self-referencing effect
- Self-esteem
  - Defensive vs. secure
  - Cost of self-esteem
- Self-serving bias
- Narcissism
Stress response

Stressor—leads to eustress or distress
Depends on appraisal
Fight-or-flight—Walter Cannon
Adrenal glands
  * Epinephrine (quick response)
  * Glucocorticoids (slow response)
General Adaptation Syndrome—Selye
  Alarm—activation of sympathetic nervous system
  Resistance—deal with/fight
Exhaustion—breakdown of immune system (telomeres in DNA affected, can’t replicate); hippocampus can’t make new memories as well
Illness
Health psychology
Psychoneuroimmunology
  Immune system impaired
  * B lymphocytes (fight bacteria—formed in bone marrow)
  * T lymphocytes (formed in thymus, fight viruses, cancers)
  * Macrophages (“big eaters”)
  * Natural killer cells
Conditioning the immune system (Ader & Cohen study)
  * Sweetened water with immune suppressing drug—created classically conditioned immune suppression
  * Placebo effect in illness?

Stress and disease
Stress and cancer
Stress and the heart
  Coronary heart disease
  Heart (Friedman & Rosenman study)
    Type A—anger, reactive vs.
    Type B—relaxed
    69% of heart attack victims were A
Stress and inflammation

Personal Control
Personal control (Julian Rotter)
  External locus of control
  Internal locus of control
  *Without internal locus, learned helplessness results
Self-control
Explanatory style (Martin Seligman)
  Optimistic
    Unstable, specific, external
  Pessimistic
    Stable, global, internal

Coping

Tend-and-befriend coping
Problem-focused (address stressor)
Emotion-focused (seeks support from others)
Exercise
Biofeedback
Mindfulness meditation
Spiritual connection

Conflict
Conflict can cause stress
  Approach-approach
  Win-win situation
  Avoidance-avoidance
  Lose-lose situation
  Approach-avoidance
  One choice, pros and cons
**LEARNING**

### Classical conditioning

- **Associative learning**
  - allows prediction (associate stimuli)
  - respondent behavior

Pavlov’s dogs (1904 Nobel prize)

* US (food) leads to:
  * UR (salivation to food)
* CS (bell) becomes associated with US, leads to:
  * CR (salivation to bell)

**Elements of classical conditioning:**
- Acquisition
- Extinction
- Spontaneous recovery
- Generalization
- Discrimination

**Implications:**
- Rescorla’s research on predictability
- Garcia’s research of biological predispositions

- easier to condition food aversions to taste rather than sight or sound
- easiest to condition behaviors that promote survival

**Applications:**
- Aversive conditioning—pairing a negative stimulus with a desired stimulus can help kick bad habits
- Drug addicts sometimes have cravings related to environment
- Classical conditioning of immune response (Ader & Cohen study)

Extinction can help cure phobias

### Operant conditioning

- **Associative learning**
  - consequences of behavior
  - operant behavior

**Thorndike’s Law of Effect**

**Skinner**

* Operant chamber (Skinner Box)
* **Shaping**
  - Successive approximations
* **Discrimination**

**Reinforcement**

- Positive reinforcement—pleasurable stimulus after a response (strengthens the response)
- Negative reinforcement—reduces or removes a negative stimulus (still strengthens the response)

**Primary reinforcers** (water, food, etc.) vs. **secondary reinforcers** (money, etc.)

**Schedules of reinforcement**

- **Continuous** (rapid learning)
- **Partial** (intermittent)
  - Ratio (certain # of behaviors)
    - Fixed (5 visits to restaurant = free meal)
    - Variable (slot machine)
  - Interval (certain period of time)
    - Fixed (ex. each day @ 3 p.m.)
    - Variable (ex. shooting stars)

**Punishment**

- Positive punishment (add bad thing)
- Negative punishment (take away good)

*Both create avoidance behaviors (ex. lie—becomes neg. reinforced)*

### Latest contributions

- **Latent learning** (Tolman)
  - cognitive maps (demonstrate learning after award is given)

- **Intrinsic motivation** (desire to do something for its own sake)

- When rewards are given for activity that is intrinsically rewarding, enjoyment declines (overjustification effect)

- **Extrinsic motivation** (desire to do something for reward)

- Should be recognition for a job well done

- **Biological predispositions**

- Easier to condition behaviors that match natural behavior, promote survival

- Legacy of Skinnerian thinking

- Criticism of deterministic philosophy, dehumanization, loss of personal freedom

- **Observational learning (modeling)**

- Mirror neurons (biological basis)

- Bandura’s Bobo doll study

- Child watches adult, mimics increase of violence, aggression

- Media influence

- Violent crimes—87% on TV, 13% real life

- Violent action is correlated to viewing violence (media, video games)

- leads to desensitization
MEMORY

ENCODING

- Controlled by attention
- Types:
  - Acoustic
  - Visual
  - Semantic
- Affected by:
  - Chunking
  - Self-reference effect
  - Elaboration
  - Rehearsal
  - Spacing
  - Hierarchies
  - Next-in-line effect
  - Serial position effect
    - Primacy effect
    - Recency effect
  - Mnemonic devices
    - Peg-words
    - Method of loci
    - Acronyms
    - Alliteration
    - Music

STORAGE

- Atkinson-Shiffrin Model (Information-processing theory)
  - Sensory ↔ STM ↔ LTM
- Sensory memory (Sperling)
  - Iconic
  - Echoic
- STM (requires attention)
  - 7 +/- 2 chunks
- LTM
  - Explicit (declarative)
    - Semantic memory (facts)
    - Episodic memory (incidents)
      - Flashbulb memory (emotional incidents)
    - Prospective memory (remember to do something in the future)
  - Implicit (procedural)

RETRIEVAL

- Aids (retrieval cues):
  - Context
  - State-dependent
  - Mood-congruent
  - Priming
- Recognition vs. recall
- Retrieval failure:
  - Forgetting curve (Ebbinghaus)
  - Tip-of-the-tongue
  - Reconstructive memory (Elizabeth Loftus)
  - *Misinformation effect
  - *Source amnesia
  - *Rosy retrospection
  - Interference (P.O.R.N.)
    - Proactive
    - Retroactive
  - Amnesia
    - Anterograde
    - Retrograde
  - Repression

BIOLOGICAL FACTORS

- Lashley’s research
- Hippocampus (explicit)
- Amygdala (flashbulb)
- Cerebellum (implicit/procedural)
- Stress hormones (glucocorticoids)
- Long-term potentiation
DEVELOPMENT

PHYSICAL

Prenatal
- Zygote
- Embryo (2-8 wks)
- Fetus (8+ wks)

Teratogens
- Critical periods
- Fetal alcohol syndrome
- Radiation
  (8-15th week, migration)
- Radiation: stops short
- FAS: too far

Relexes
- Moro
- Rooting
- Babinski
- Palmar

Maturation
- Cephalocaudal
- Proximodistal

Puberty
- Primary sex characteristics
- Secondary sex characteristics
- Frontal lobe development

Old age
- Sensory decline
- Recall vs. recognition
- Decay of fluid intelligence
- Consistency of crystallized intelligence
- Dementia
- Alzheimer’s disease

SOCIAL

Lev Vygotsky (social-cognitive)
- Zone of proximal development
- Mentors

Lorenz’s study of imprinting
Harlow’s research on touch
Stranger anxiety
Ainsworth’s attachment theory
- Strange situation paradigm
- Secure attachment (50%)
- Insecure attachment
- Ambivalent
- Avoidant

Baumrind’s parenting styles
- Authoritarian
- Authoritative
- Permissive

Erikson’s stages (psychosocial)
- Trust vs. mistrust
  (0-1) basic trust
- Autonomy vs. shame & doubt
  (1-2) independence
- Initiative vs. guilt
  (3-5) initiation of tasks
- Competence vs. inferiority
  (6-12) accomplishment
- Identity vs. role confusion
  (13-20s) sense of self
- Intimacy vs. isolation
  (20s to 40s) relationship
- Generativity vs. stagnation
  (40s to 60s) contribution
- Integrity vs. despair
  (60s+) satisfaction

COGNITIVE

Schemas
- Assimilation
- Accommodation

Sensorimotor stage (0-2)
- Object permanence (6 mos)

Preoperational stage (2-7)
- Egocentrism
- Animism
- Symbolic thought begins

Concrete operational stage (8-12)
- Conservation
  - Volume
- Area
- Number
- Reversibility

Formal operational stage (12+)
- Hypothesis testing
- Abstract thinking
- Metacognition

MORAL

Kohlberg’s theory
- Preconventional morality
  - Avoiding punishment
- Conventional morality
  - Accepting rules of society
- Postconventional morality
  - Ethics, abstract morality
- No absolutes

Carol Gilligan
- Men - Rules & ethics
- Women - Relationships

Jonathan Haidt
- Social intuitionist theory
- Gut-level reactions
  (limbic system)

METHODS OF STUDY

Habitation studies
- Longitudinal research
- Cross-sectional research

STAGES OF DEATH/DYING (Kubler-Ross)
- Denial
- Anger
- Bargaining
- Depression
- Acceptance
**Neural communication**

- **Resting potential**
  - -70 mV inside
  - Neuron is **polarized**
- **Action potential** (all-or-none)
- Neurotransmitters bind to dendrites
- Neuron reaches -55 mV
- Becomes **depolarized**
- Sodium/potassium ions
- Signal moves down the axon
- Neurotransmitters release to synapse
- Must **repolarize**
  - Reuptake of neurotransmitters
  - Return to -70 mV
  - Refractory period (can’t fire)

- **Myelin sheath**
  - Insulates motor neurons
  - Speeds message
  - Decay of myelin sheath - multiple sclerosis
  - Intelligence

- **Excitatory** neurotransmitters
  - Acetylcholine (skeletal muscles)
  - Serotonin (depression/general well-being)
  - Dopamine (high - schizophrenia; low - Parkinson’s)
  - Norepinephrine (Alertness, linked to fight-or-flight)
  - Endorphins (pain relief)
- **Inhibitory** neurotransmitter (GABA)
  - Effect of agonists/antagonists

**The brain**

- **Plasticity**
- Hindbrain/brainstem:
  - Cerebellum — coordination
  - Medulla — breathing, heartbeat
  - Pons — sleep, arousal, dreams
  - Reticular formation — arousal
- Midbrain:
  - At the intersection of forebrain & hindbrain (spatial awareness)
- Forebrain:
  - Thalamus — sensory switchboard
  - Limbic system — emotion
    - Hippocampus (memory)
    - Amygdala (fear, anger)
    - Hypothalamus (biological needs, e.g. hunger, sex, thirst)
- Cerebrum/cerebral cortex
  - Prefrontal cortex (planning, or ganization, risk assessment)
  - Frontal lobes (motor cortex, mirror neurons)
    - * Broca’s area (speech)
    - * Angular gyrus
  - Parietal lobes (somatosensory cortex)
    - * Wernicke’s area
  - Temporal lobes (auditory cortex)
    - * Wernicke’s area
  - Occipital lobes (visual cortex)

**The endocrine system**

- **Pituitary** — master gland (directed by the hypothalamus)
- Hormones biochemically the same as neurotransmitters
- Adrenal gland — stress hormones
- Transmitted in the bloodstream

**Organization of the nervous system**

- **CNS**
  - Brain and spinal cord
- **Peripheral nervous system**
  - Spinal cord
  - Somatic nervous system
  - Autonomic nervous system
  - Sympathetic nervous system
  - Parasympathetic nervous system
  - Interneurons

**Hemispheric specialization**

- Split-brain surgery (corpus callosum severed)
  - *Used to treat uncontrolled seizures
  - Seen in left visual field, processed in right hemisphere
  - Seen in right visual field, processed in left hemisphere

**Methods of study**

- **Structure**
  - Lesions
  - CT scan
  - MRI
- **Function**
  - EEG
  - PET scan
  - fMRI
  - MEG

**NEUROSCIENCE**

**Organization of the nervous system**

**Peripheral nervous system**

**Somatic nervous system**

**Autonomic nervous system**

**Hemispheric specialization**

- **Left hemisphere**
  - Language/logic
- **Right hemisphere**
  - Nonverbal/spatial/musical/recognition

**Methods of study**

- **Structure**
  - Lesions
  - CT scan
  - MRI
- **Function**
  - EEG
  - PET scan
  - fMRI
  - MEG
Behavior genetics
- Evolutionary psychology
  - *reproductive advantage
- Genetic make-up
  - Chromosomes (23+23)
  - *made up of DNA coils
  - *made up of individual genes
- genes “turned on” to create proteins
  - * Genome (blueprint of genes)
  - * Phenome (expression of genes)
- Epigenetics
  - each individual exp is phenotype

Twin/adoption studies
- Monozygotic vs. dizygotic twins
- Temperament—genetic link

Heritability
- Identical environments—100%
- Identical genetics—0%

Molecular geneticists

Gender
- Casual sex (FSU study)
  - Males in US
    - * tend to more active play
    - * violent actions more common
    - * viewed as dominant
    - * leaders—directive
    - * interactions—opinionated
      - Male answer syndrome
    - * side-by-side activities
  - Females in US
    - * more quiet play
    - * viewed as deferential, nurturing
    - * leaders—democratic
    - * interactions—supportive
    - * Gilligan—connections w/others
    - * face-to-face activities

Sex determined by 23rd chromosome pair
- (X from mother, X or Y from father)
- 7th week after conception, 4-5th month—testosterone influence

Intersex
- Gender roles
- Gender identity
- Gender typing
  - androgyny
  - transgender

Social learning theory
- Gender schema theory

Nurture
- Rosenzweig study—enriched environments
- Neural pruning
- Parental influences
- Peer influences
- Cultural influences
  - Norms
  - Individualism vs. collectivism
  - Cultural similarities
### Perspectives

- Introspection
  - Wilhelm Wundt—1st lab, Germany
  - Structuralism
  - William James—1st text, Harvard
  - Functionalism
- Gestalt—total experience “the whole”
- Perception
- Psychoanalysis—Freud
- Behaviorism—Watson (Little Albert), Skinner (operant conditioning)
- Humanism (Maslow, Rogers)
- Biological—brain chemistry, hormones, genes, etc.
- Evolutionary (sociobiology)—impact of traits that promote reproduction and survival
- Cognitive—thinking patterns
- Sociocultural—influence of people

### Subfields
- Basic/applied research
- Counseling/clinical psychologist
- Psychiatrist
- Community psychologist

### Ethics

- Animal research
  - Clear scientific purpose
  - Humane treatment
  - Legal acquisition of subjects
  - Limit suffering to least feasible
- Human research
  - Informed consent
  - Limit deception
  - No coercion
  - Protect from harm
  - Confidentiality
  - Debrief afterwards

### Psychological research

- Limits of intuition
  - Hindsight bias
  - Overconfidence
  - Confirmation bias
- Scientific attitude
  - Curiosity
  - Skepticism
  - Humility
- Scientific method
  - Theories
  - Hypothesis
  - Operational definitions
  - Replication
- Methodology
  - Case study
  - Survey
    - Wording effects
    - Random sampling
    - False consensus effect
    - Naturalistic observation
      - * Must avoid Hawthorne Effect
  - Correlational studies
    - Prediction
    - NOT CAUSATION
    - Illusory correlation
    - Superstition
- Experiment
  - (see [experimentation](#))

### Experimentation

- Cause & effect
- Procedure:
  - Blind study
  - Double-blind study
  - Experimental group vs. control group
  - Independent variable
    - Experimenter manipulates
  - Dependent variable
  - Experimenter measures
  - Confounding variables
  - Random selection
  - Random assignment
  - Generalizability

### Measuring data

- Descriptive statistics
  - Central tendency (averages)
    - Mean
    - Median
    - Mode
  - Normal curve
  - Correlations (relationships)
    - Scatterplot
    - Correlation coefficient
  - Variation
    - Range
    - Standard deviation
    - Variance
- Inferential statistics
  - Do my results mean anything?
    - * Sample size influence
    - * Significant differences
      - p<.05 (alpha level)
The basics

- Sensation vs. perception
- Bottom-up processing
- Top-down processing
- Protopagnosia-fusiform face area
- Visual capture

Perceptual organization

- Figure-ground relationship
- Gestalt principles
  - Proximity
  - Similarity
  - Continuity
  - Connectedness
  - Closure

Visual perception

- Depth perception
  - Binocular cues
    - Retinal disparity
    - Convergence
    - Visual cliff
  - Monocular cues
    - Linear perspective
    - Relative size
    - Interposition
    - Relative clarity
    - Texture gradient
    - Relative height
    - Light & shadow
- Motion perception
  - Relative motion (motion parallax)
  - Stroboscopic movement
  - Phi phenomenon
- Constancies
  - Color constancy
  - Size constancy
  - Shape constancy
  - Lightness constancy
- Illusions
  - Muller-Lyer illusion
  - Cultural influence
  - Ponzo illusion
  - Moon illusion
  - Sensory deprivation
  - Critical periods

Other principles

- Perceptual adaptation
- Perceptual set
- Context effects

- ESP (extra-sensory perception)?
  - Parapsychology
  - Telepathy
  - Clairvoyance
  - Precognition
  - Psychokinesis
  - Way to test: Ganzfeld procedure

Hypnosis

- Mesmer (18th century)
- Susceptibility
  - Creativity, desire influences
- Therapeutic capacity
  - Posthypnotic suggestions
  - Pain alleviation
  - Selective attention?
- Theories:
  - Social influence theory
    - Emphasizes desire of subjects to do well
  - Divided consciousness theory
    - Emphasizes dissociation
  - Hilgard’s “hidden observer”
Biology of sleep

Biological rhythms
  Circadian rhythm (25 hr cycle)
  Light (suprachiasmatic nucleus)
  Pineal gland (near thalamus)
  Melatonin
  Adenosine (sleep-inducing)

Sleep stages
  Prior to stage 1 (alpha waves)
  Stage 1 (theta waves) 5 min.
  Hypnagogic sensations
  Stage 2 (K-complexes, sleep spindles)
    Approx. 20 minutes
  Stage 3 (<50% delta waves)
  Stage 4 (>50% delta waves)
    Stage 3 & 4—slow wave sleep

Order of stages
  1, 2, 3, 4, 3, 2, REM, 2, 3, 4, 3, 2, REM

REM—paradoxical sleep
  Active brain, paralyzed body

REM rebound

Benefits
  Memory consolidation
  Concentration
  Mood
  Moderates hunger/reduces obesity
  Improves immune response

Disorders
  Insomnia (10-15% of adults)
  Narcolepsy
  Sleep apnea
  Night terrors (stage 4)
  Sleepwalking (stage 4)

Dreaming

Freud’s analysis
  Manifest content vs.
  Latent content

Information-processing theory
  Filing experience
  Synthesizing memory
  Pruning connections
  Build neural pathways

Activation-synthesis theory
  Pons generates neural firing
  Lucid dreams
  Conscious awareness of dream state

Psychoactive drugs

Substance use disorder
  Tolerance/withdrawal
    Involves neuroadaptation
  Addiction vs. dependence
    Nucleus accumbens

Depressants
  Alcohol
    Reduces inhibitions
    Impairs activity of frontal lobe
    Disrupts formation of LTM
  Barbiturates (tranquilizers)
    Reduce anxiety, mimic alcohol
  Benzodiazepines (Xanax, Valium)
  Opiates (endorphin agonists)
    Morphine, heroin, oxycontin

Stimulants
  Nicotine
  Cocaine—rush/crash
  Amphetamines/meth

Ecstasy (MDMA)—also a mild hallucinogen
  Stimulates serotonin
  Interferes w/sleep, impairs memory, reduces immune response

Hallucinogens
  Near-death experience
  LSD—serotonin agonist
  Marijuana—cannabinoid agonist
  THC
    Disrupts memory formation

Biological Influences

STATES OF CONSCIOUSNESS

Selecting attention
  Cocktail party effect
  Inattentional (change) blindness
  Choice blindness

Dual Processing
  Blindsight

Parallel and Sequential Processing

The Two-Track Mind
Theories of motivation

- Instinct theory (evolutionary)
  - fixed patterns, unlearned
- Drive-reduction theory (Clark Hull)
  - Object is homeostasis
  - Pulled by incentives (external)
- Arousal theory
  - Yerkes-Dodson law
    - Easy task—high arousal
    - Difficult task—moderate
- Maslow’s hierarchy of needs
  - Physiological at base, then safety,
    belonging & love, esteem,
    self-actualization, transcendence
  - Need to belong
    - Ostracism—activates anterior cingulate cortex (also activates with pain)

Physiology of sex

- asexual
- Masters & Johnson research
- Kinsey report
- Sexual response cycle
  - Excitement—plateau—orgasm—resolution (refractory period)
- Sexual dysfunctions
  - Premature ejaculation
  - Erectile disorder
  - Female orgasmic disorder
  - paraphilias
- Hormones
  - Estrogen / androgens (testosterone)

Psychology of sex

- External stimuli
  - Habituation occurs
  - Decreased satisfaction w/sexual partners
- Gender roles/gender identity
- Sexual orientation
  - Estimated 3-4% men, 2% women
  - But could be higher (response bias)
  - Identical twin studies support genetic basis
  - Hypothalamus differences (LeVay)
  - Anterior commissure differences
  - Fraternal birth order effect
  - Same sex attraction in animals
    - (6-10%)
  - Finger length/fingerprint ridges
    - (7th/16th week of development)

Achievement motivation

- Flow
- I/O psychology
- Personnel psychology
  - To avoid the interviewer illusion
    - Structured interviews
    - 360-degree feedback
- Grit (determination, breeds success)
- Theory X vs. Theory Y
- Task leadership vs. social leadership
- Great person theory
- Transformational leadership

Physiology of hunger

- Keys’ research
- Cannon’s research
- Body chemistry
  - Insulin up, glucose down
- Hypothalamus stimulation
  - Lateral—hunger increases
    - Orexin (protein)
    - Ghrelin (hormone)
  - Ventromedial—hunger declines
    - PYY—suppresses hunger
    - Leptin (protein)
    goes up, hunger down
- Set point
- Basal metabolic rate

Psychology of hunger

- Taste Preferences
- Neophobia (avoidance of unfamiliar food)
- Ecology of eating
- Obesity (30% in US)
  - Physiological factors
  - Environmental factors
**Theories**

- **Emotion**—arousal, expressive behavior, and conscious experience
  - James-Lange theory: physiological response 1st, emotion 2nd
  - Cannon-Bard theory: physiological response at the same time as experience of emotion
  - Schachter’s two-factor theory: physiological arousal, then appraisal (cognition) creating emotion label
  - Spillover effect: Stirred up physiological state can be misinterpreted as emotional state
  - Zajonc’s theory: Subliminal processing of emotions (neural pathway is from thalamus to amygdala)
  - Lazarus: Cognitive appraisal controls emotion

**Nervous system**

- Autonomic arousal
  - Sympathetic nervous system: pupils dilate, dry mouth, perspiration, fast breathing, accelerated heart rate, slowed digestion, stress hormones released (fight-or-flight)
  - Parasympathetic nervous system: returns body to original calm state

**EMOTION**

- **Expressed emotion**
  - Nonverbal communication
    - Easily detect threatening cues
    - Thin slices (quick views of interactions) - some better at reading
  - Gender differences
    - Women tend to be more able to read non-verbal cues
    - Also tend to communicate emotion better
  - Ekman’s research
    - Microexpressions
    - Universal emotional expressions
      - Happiness, surprise, fear, sadness, anger, disgust
  - Facial feedback: we feel the emotion we show
  - Display rules: may vary by culture, gender, etc.
  - Behavior feedback: we feel the emotion our body looks like it’s feeling
  - Empathy: feeling another’s emotion
  - Mirror neurons
  - Reading emotion: autistic people show problems in reading emotional states of others

- **Experience of emotion**
  - Emotion = valence (pleasant/unpleasant) and arousal (low/high)
    - *insula
  - Fear—learn early, through conditioning, observation
    - * Amygdala key
    - * Anterior cingulate cortex
  - Anger - Catharsis hypothesis—release
    - But creates more anger
    - Reinforcement
    - How to control?
      - Waiting to act
      - Exercise
      - Forgiveness
  - Happiness (subjective well-being)
    - * Feel-good, do-good phenomenon
    - * People who value love over money report higher life satisfaction
    - * Adaptation-level phenomenon
    - * Relative deprivation principle
  - **Predictors:** high self-esteem, optimism, close friendships/marriage, engaging work, meaningful faith, good sleep, exercise
  - **Contributors:** know that wealth doesn’t make you happy, control your time, act happy, seek enjoyable work, exercise, sleep, make relationships a top priority, help others, be grateful, seek spiritual fulfillment
**Theories of intelligence**

- It's conceptual, not a thing
  (reification—assuming it's a thing)
- Single intelligence theory
  Spearman: "g" represents related clusters of skills (used factor analysis)
- Multiple intelligence theories
  * Based on evidence from savants
  Thurstone: primary mental abilities
    - 7 clusters
  Gardner: 8 intelligences
    - linguistic, logical-mathematical, musical, spatial, kinesthetic, intrapersonal, interpersonal, naturalistic
- Savant syndrome
- Stenberg’s triarchic theory
  - analytical, creative, practical
- Emotional intelligence (EQ)
  - Relates to success in family, career

**Assessing intelligence**

- Binet's test (to identify special needs)
- Terman (Stanford)
  - Supported eugenics (Social Darwinism)
  - American version (Stanford-Binet)
  - MA/CA X 100 = IQ
- Wechsler Adult Intelligence Scale (WAIS)
- Wechsler Intelligence Scale for Children (WISC)
- Bias: Stereotype threat, gender bias
  - Culture-fair aptitude test

**Aging and intelligence**

- Cohort
- Crystallized intelligence
- Fluid intelligence

**Neurological evidence**

- Brain anatomy:
  - Larger brain (thickening of cortex due to enhanced connections?)
  - 17% more synapses (maybe better neural plasticity?)
  - Einstein’s brain—thicker in parietal lobe (math/spatial intelligence?)
- Brain function:
  - Frontal lobe activity during IQ test questions
  - Perceptual speed correlates positively
  - Neurological speed (evoked brain response faster)
  - More efficient glucose consumption
  - Uses less, processes more efficiently?
- Genes:
  - Identical twins highly correlated
  - Adopted children, little correlation
  - Heritability
  - Gender

**Creating tests**

- Achievement tests
- Aptitude tests
- Standardization
  - Representative sample, compare scores
  - Chart on normal curve
    - 68-95-99.7 (standard deviation)
- Flynn effect
- IQ scores improving over time
- Principles of test creation
  - Reliability: test needs to get same results each time it's given
    - Test-retest reliability
    - Split-half reliability
  - Validity: test needs to measure what it's designed to measure
    - Content validity (material reflects what should be tested)
    - Face validity
    - Criterion-related validity (matches in dependent measure of what the test is designed to measure)
    - Concurrent validity
    - Predictive validity
      - May be affected by range of scores tested
      - Construct validity (use a previous validated instrument and correlate to that test’s results)
- Extremes of intelligence:
  - Mental retardation:
    - Mild (50-70 IQ), moderate (35-50 IQ), severe (20-35 IQ)
  - Down syndrome (extra 21st chromosome)
  - Gifted (Terman’s study — “Termites”)
    - Healthy, well-adjusted, successful
    - No tracking, special treatment in China/Japan
Anxiety disorders

GAD (generalized anxiety disorder)
- Free-floating anxiety
Panic disorder without agoraphobia
- Strikes suddenly
- Panic attacks (seem like heart attacks)
Panic disorder with agoraphobia
Specific phobia—focused fear

Obsessive-compulsive disorders

Obsessive-compulsive disorder (OCD)
- Obsessions—thoughts
- Compulsions—behaviors
Hoarding Disorder
Body Dysmorphic Disorder

Mood (affective) disorders

Depression (common cold of disorders)
- Major depressive disorder (more than 2 weeks of debilitating depression)
Persistent Depressive Disorder aka dysthymic disorder (more than 2 years feeling bad most days)
Bipolar disorder
- Mania (restlessness, risk-taking, craziness, fast talking) alternates with depression
- May be fast cycling or slow cycling

Explanations:
- Genetic predispositions (linkage analysis, association studies)
- Brain chemistry (serotonin, norepinephrine, dopamine; decreased activity in left frontal lobe
- Social-cognitive
- Ruminator
- Self-defeating beliefs (learned helplessness)
- Optimistic /Pessimistic Explanatory Style
- Stable, global, internal (depressed)
- Temporary, specific, external (non-depressed - optimistic)

Vicious cycle of depression:
- Stressful experience leads to
- Negative explanatory style... leads to Depressed mood... leads to
- More stressful experiences...and the cycle begins again

Suicide and self injury

NSSI

Fight depression by: changing environment, reducing self-blame, making positive predictions about the future, exercise, become focused on helping others, laugh more!
**DISORDERS (CONTINUED)**

### Schizophrenia

- Considered the “cancer” of disorders
- Psychotic disorders
- 1% of population worldwide (suggests biological basis)
- Involves a break with reality (psychosis)
- **NOT multiple personality**

**Common symptoms:**
- Disorganized thinking:
  - Delusions (false beliefs)
  - Paranoia (persecution)
  - Word salad (bizarre speech)
- Disturbed perceptions:
  - Hallucinations (auditory most often)
- Inappropriate actions/emotions:
  - Reactivity
  - Flat affect
  - Catatonia
- Subtypes of symptoms:
  - Positive symptoms (exhibit odd behavior)
  - Negative symptoms (normal behavior absent)
- Either chronic (process—develops slowly) or acute (reactive—develops quickly)

**Dimensions:**
- Paranoid
- Disorganized
- Catatonic
- Undifferentiated
- Residual

#### Brain abnormalities
- Dopamine overactivity
  - D4 receptors 6 X normal
- Glutamate—may relate to negative symptoms
- Enlarged ventricles
- Shrunken thalamus

#### Environmental factors
- Low birth weight, famine, oxygen deprivation?
- Virus during pregnancy? Flu link during 2nd trimester

#### Genetic factors
- Much higher chance of shared schizophrenia with identical vs. fraternal twins

#### Psychological factors/warning signs
- Birth complications
- Mother with schizophrenia
- Separation from parents
- Disruptive or withdrawn behavior
- Poor muscle coordination
- Poor attention span
- Poor peer relationships/solo play
- Emotional unpredictability

#### Typical onset—teens or early 20s

### Explorations of schizophrenia

#### Diathesis-stress model

### Personality disorders

- Cluster A (eccentric)
  - Paranoid personality disorder
  - Schizoid personality disorder—odd, withdrawn behavior
  - Schizotypal personality disorder—with some schizophrenic-like symptoms

- Cluster B (dramatic)
  - Antisocial personality disorder—lack of remorse, empathy (mirror neurons); typical onset about 8 yrs.
  - Borderline personality disorder—on the borderline of psychosis
  - Histrionic personality disorder—dramatic personality
  - Narcissistic personality disorder—extreme self-absorption

- Cluster C (anxious)
  - Avoidant personality disorder—stays away from others
  - Dependent personality disorder
  - Obsessive-compulsive personality disorder

### Dissociative disorders

- Dissociative identity disorder—multiple personality
- Dissociative fugue—person doesn’t remember past, wakes up in strange location
- Dissociative amnesia—person doesn’t remember past
- No biological explanations

### Eating disorders

- Anorexia nervosa
  - At least 15% underweight
  - Continue to view self as fat
- Bulimia nervosa
  - Binge-purge pattern
  - Not necessarily low weight
Psychoanalysis

- Based on Freudian ideas
- Repressed ideas must be accessed
- Insight is the goal

Methods
- Free association
- Resistance
- Dream analysis
  - Latent content most important

Duration
- Years

Psychodynamic therapy—same foundation, less intense

Behavioristic

Classical conditioning applications:
- Counterconditioning—replace previous fear response with new relaxation response
- Exposure therapy (Mary Cover Jones)
  - Gradual exposure to feared object
  - Systematic desensitization (Wolpe)
    - Anxiety hierarchy, then relaxation
  - Virtual reality exposure therapy
  - Implosion therapy
    - Includes flooding
  - Aversive conditioning (substitute negative response for unwanted behavior)

Operant conditioning applications:
- Punishment (bed-wetting buzzers)
- Behavior modification
  - Token economy

Effectiveness

People report that therapy is effective
- * But regression toward the mean?
- * Selective recall
- * Eysenck’s research: 2/3 improved with or without therapy

Depression: cognitive, interpersonal, behavior
Anxiety: cognitive, exposure, behavioral
Bulimia: cognitive-behavioral therapy

Evidence based practice
Other unusual treatments:
- EMDR—For trauma victims
- Light exposure therapy—for SAD

Biomedical therapy

1950’s—deinstitutionalization

Antipsychotic medications (neuroleptics):
- Chlorpromazine (Thorazine) -.pos. symptoms
- Clozapine (Clozaril) - negative symptoms
  - Problem: tardive dyskinesia
- Atypical antipsychotics (D2 & serotonin antagonists) - fewer side effects

Antianxiety meds: Xanax, Valium, Ativan
  (GABA agonists - benzodiazepines)

Antidepressants: also for OCD, anxiety
  SSRI’s—Prozac, Zoloft, Paxil, etc.

Mood stabilizers
- Lithium—bipolar
- Depakote—bipolar (originally for seizures)

Brain stimulation
- ECT (electroconvulsive therapy), tDCS, rTMS (magnetic stimulation), DBS

Surgery: Lobotomy (Moniz)

Humanistic

Focus: boost self-actualization (Maslow)
- Become more self-accepting

Insight therapies

Method:
- Client-centered therapy
  - Active listening (no judgment)
    - Reflect feelings of client
  - Non-directive

Therapist: genuineness, unconditional positive regard, empathy

Active listening

Goal: promote personal growth, personal responsibility

Cognitive therapy

Aaron Beck (cognitive triad)

Cognitive-behavioral therapy

Albert Ellis (REBT)

Stress inoculation training (change in thinking patterns to stress)

Dialectical Behavior Therapy (DBT)

Group/family therapy

Saves time/money

Humanistic foundation

Often as effective as individual therapy
Group behavior

Social facilitation vs. social inhibition
* related to Yerkes-Dodson Law

Social loafing
Deindividuation
* loss of identity, others don't know who you are

Group polarization
* movement to more extreme positions

Groupthink (Janis)
* influenced by desire for harmony

Minority influence
* self-confidence, determination key

Prejudice (attitude)
* leads to discrimination
* Social roots: social inequality, blame-victim, in-group vs. out-group leading to in-group bias
* Emotional roots: Fear, anger (leads to scapegoating)
* Cognitive roots: Categorization, availability heuristic, just-world phenomenon
* Jane Elliot study — children and stereotyping
* Self-fulfilling prophecies

Attraction and Altruism

- Physical attractiveness (key is empathy, self- vs. compassionate love, two-factor theory)

Aggression and conflict

- ubuntu-peacekeeping roles
  - Peacekeeping, GRI
  - Social responsibility norm
  - Reciprocity norm
  - Explained by social exchange theory
  - Attribution of responsibility
  - Bandwagon effect

Attribution
- Fundamental attribution error
- Actor-observer bias
- Self-serving bias

Aggression and conflict

- Frustration-aggression principle
- Modeling (observational learning)
- Social scripts (mental tapes on how to act)
- Video games?
- Catharsis hypothesis (builds more anger)
- Video games?
- Social scripts (mental maps on how to act)
- Modeling (observational learning)
- Function-reversal hypothesis

Psychology
- Central route to persuasion
- Peripheral route to persuasion
- Central route to persuasion
- Door-in-the-face
- Door-in-the-door

Attitude change

- Cognitive dissonance (Festinger)
- Role-playing (Zimbardo prison study)
- Peripheral route to persuasion
- Central route to persuasion
- Door-in-the-face
- Door-in-the-door

Persuasion
- Central route to persuasion
- Peripheral route to persuasion
- Foot-in-the-door
- Door-in-the-door

Normative social influence vs. informational social influence

Obedience (Milgram's study)

Conformity (Asch study)

Social influence

- General social influence
- Normal social influence vs. Informational social influence
- Mood linkage (mimicry)
- Chameleon effect

COGNITIVE ATTITUDE COMPONENTS OF ATTITUDE CHANGE

- Cognitive dissonance (Festinger)
- Role-playing (Zimbardo prison study)
- Peripheral route to persuasion
- Central route to persuasion
- Door-in-the-face
- Door-in-the-door
- Action-attribution change

-role-taking attribute

PERSUASION

- Central route to persuasion
- Peripheral route to persuasion
- Foot-in-the-door
- Door-in-the-door