

PERSONALITY

Psychoanalytic

Freud's psychosexual theory
Structure: id (pleasure principle), ego (reality principle), superego (morals, ideals)
Levels of awareness: conscious, pre-conscious, unconscious
Development: oral, anal, phallic (Oedipal complex, penis envy), latency, genital
Fixations
Defense mechanisms - reduce anxiety
Repression (primary)
Regression
Reaction formation
Rationalization
Displacement
Sublimation
Projection
Denial
Neo-Freudians
Adler—social, not sexual tensions
* Birth order, inferiority complex
Horney—rejected penis envy idea
Carl Jung—collective unconscious
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
* Safety—security—love—self-esteem—self-actualization
Carl Rogers—person-centered
Genuineness
Unconditional positive regard
Empathy

Trait theory

Greeks—4 humors (choleric, sanguine, melancholic, phlegmatic)
Allport (student of Freud)
Eysenck—unstable/stable; introverted/extroverted
Costa & McCrae (Big 5)
OCEAN (openness, conscientiousness, extraversion, agreeableness, neuroticism)
Assessment
MMPI (used factor analysis, empirically derived)
Cattell's 16PF
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
Personal control (Julian Rotter)
External locus of control
Internal locus of control
*Without internal locus, learned helplessness results
Explanatory style (Martin Seligman)
Optimistic
Unstable, specific, external
Pessimistic
Stable, global, internal
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
Self-serving bias

STRESS & HEALTH

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
Heart (Friedman & Rosenman study)
Type A—anger, reactive vs.
Type B—relaxed
69% of heart attack victims were A
Immune system impaired
* B lymphocytes (fight bacteria—formed in bone marrow)
* T lymphocytes (formed in thymus, fight viruses, cancers)
* Macrophages (“big eaters”)
Conditioning the immune system (Ader & Cohen study)
* Sweetened water with immune suppressing drug—created classically conditioned immune suppression
* Placebo effect in illness?

Coping

Problem-focused (address stressor)
Emotion-focused (seeks support from others)
Exercise
Biofeedback
Meditation
Spiritual connection

Conflict

Approach-approach
Win-win situation
Avoidance-avoidance
Lose-lose situation
Approach-avoidance
One choice, pros and cons

Obesity & health

Physiology
Fat cells—30-40 million
Divide if too full, can't get rid of fat cells
Set-point/metabolism
Fat cells—low metabolic rate
Metabolism slows when fat cells are deprived, tries to maintain fat level
Genetics
Adopted children's weight not correlated to adoptive parents
Identical twins correlation +.72
Fraternal twins correlation +.32
Chemical effect
Leptin in rats—when up, weight down

Losing weight?
2/3 of women, 1/3 of men trying

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

Legacy of Skinnerian thinking

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

Observational learning (modeling)

Mirror neurons (biological basis)

- promote empathy

Bandura's Bobo doll study

Child watches adult, mimics

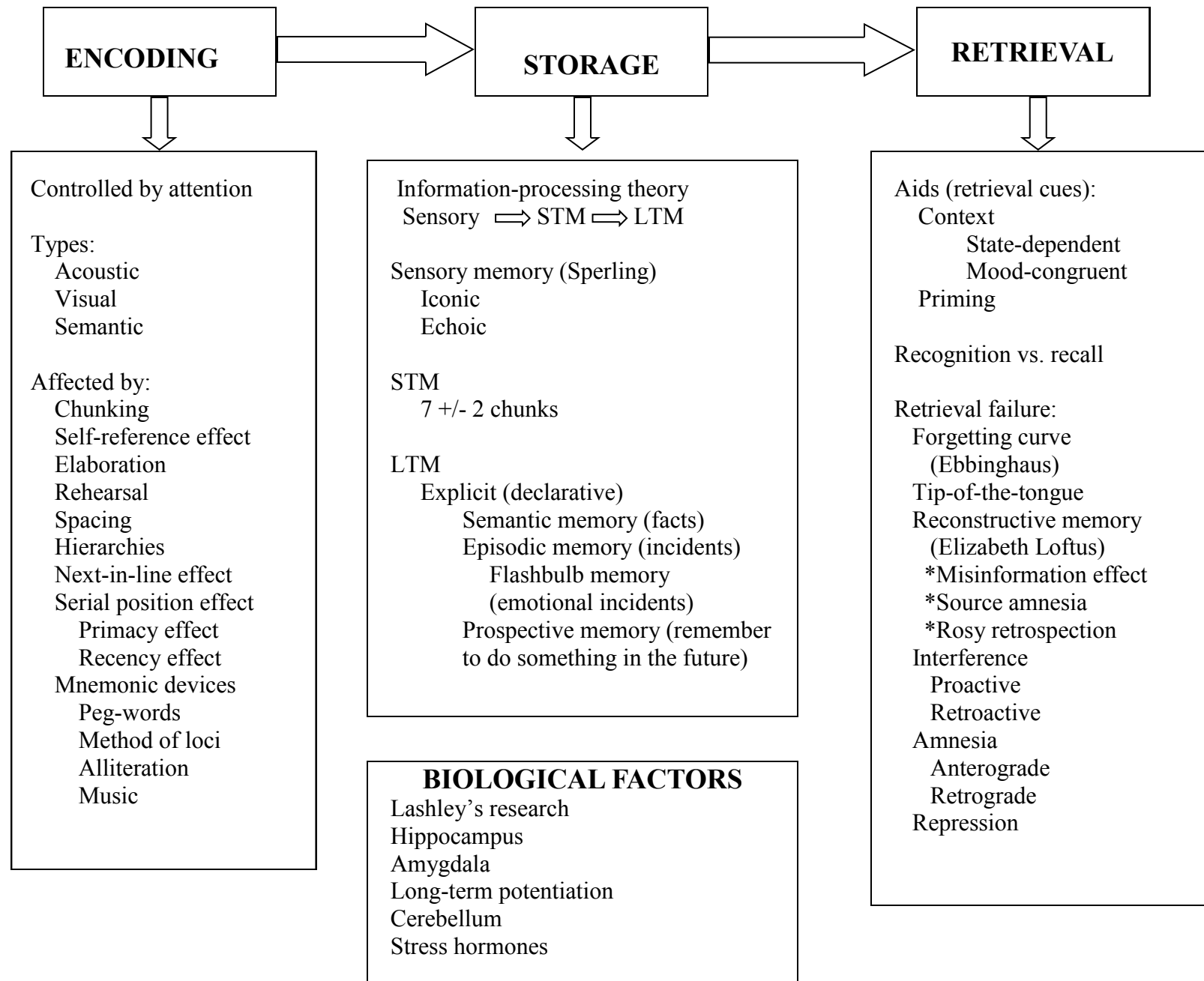
Increase of violence, aggression

Media influence

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

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

MEMORY



DEVELOPMENT

PHYSICAL

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

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

Reflexes
Moro
Rooting
Babinski
Palmar

Maturation
Cephalocaudal
Proximodistal

Puberty
Primary sex characteristics
Secondary sex characteristics
Frontal lobe development

Old age
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 (60%)
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

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

Self concept
18 mo.—rouge test

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

Longitudinal research
Cross-sectional research

STAGES OF DEATH/DYING (Kubler-Ross)

Denial ... Anger ... Bargaining ... Depression ... Acceptance

NEUROSCIENCE

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

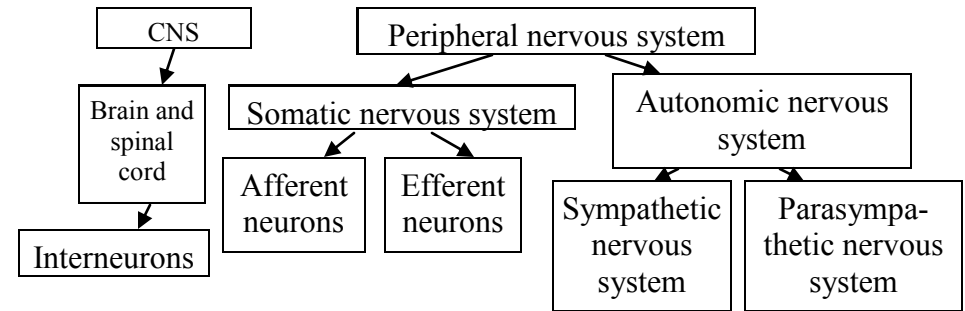
Excitatory neurotransmitters
Acetylcholine (skeletal muscles)
Serotonin (depression/general well-being)
Dopamine (high - schizophrenia; low—depression)
Norepinephrine (Alertness, linked to fight-or-flight)
Endorphins (pain relief)
Inhibitory neurotransmitter (GABA)
Effect of agonists/antagonists

The brain

Plasticity—neurons can be used for new purposes

Hindbrain:
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)
Parietal lobes (somatosensory cortex)
* Angular gyrus
Temporal lobes (auditory cortex)
* Wernicke's area
Occipital lobes (visual cortex)

Organization of the nervous system



Hemispheric specialization

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

Left hemisphere
Language/logic

Right hemisphere
Nonverbal/spatial/
musical/recognition

Methods of study

Structure
Lesions
CT scan
MRI

Function
EEG
PET scan
fMRI

The endocrine system

Pituitary—master gland (directed by the hypothalamus)
Biochemically the same as neurotransmitters
Adrenal gland—stress hormones

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, etc.
Evolutionary (sociobiology) —impact of traits that promote survival of species
Cognitive—thinking patterns
Sociocultural—environment

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

HISTORY & RESEARCH

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 condition vs. Control condition
Independent variable
Experimenter manipulates
Dependent variable
Experimenter measures
Confounding variables
Random selection
Random assignment

Measuring data

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

The basics

Sensation vs. perception
Bottom-up processing
Top-down processing
Prosopagnosia
Thresholds
Psychophysics
Absolute threshold
Signal detection theory
Subliminal messages
Difference threshold (JND)
Weber's Law/Fechner's Law
Sensory adaptation
Transduction
Receptors

Other senses

Touch
Pressure, temperature, pain
Nociceptors
Gate-control theory
Taste (gustatory sense - chemical)
Sweet, sour, salty, bitter, umami
Taste buds
Sensory interaction
McGurk effect
Smell (olfactory sense - chemical)
Does not go through the thalamus
Direct route to limbic system
Kinesthesia
Vestibular sense
semicircular canals
Synaesthesia

SENSATION

Vision

Light energy
Wavelength (color)
Amplitude (brightness)
Parts of the eye
Cornea
Pupil
Lens
Accommodation
Retina (transduction here)
Rods (120 million)
Cones (6 million)
Fovea
Bipolar cells
Ganglion cells
Optic nerve to occipital lobe
Blind spot
Visual acuity
Nearsightedness/farsightedness
Feature detectors
Parallel processing
Blindsight
Change blindness

Retina to thalamus to cortex

Color interpretation
Young-Helmholtz theory
Subtractive color mixing
Additive color mixing
Opponent-process theory
Afterimages
Color constancy

Audition (hearing)

Sound energy
Frequency (pitch)
Amplitude (loudness)
Measured in dB (decibels)
Every 10 dB = 10 times louder
Parts of the ear
Outer ear
Pinna (visible part)
Auditory canal
Middle ear
Tympanic membrane (eardrum)
Ossicles (hammer, anvil, stirrup)
Inner ear
Oval window
Cochlea
Basilar membrane
Hair cells (transduction here)
Organ of Corti
Semicircular canals (NOT for hearing)
Auditory nerve to temporal lobe
Perceiving sound
Place theory
Frequency theory
Volley principle
Sound localization
Hearing loss
Sensorineural hearing loss
Cochlear implant
Conduction hearing loss

The basics

Sensation vs. perception
Bottom-up processing
Top-down processing
Prosopagnosia
Selective attention
Cocktail party effect
Inattentional (change) blindness
Choice blindness
Visual capture

Perceptual organization

Figure-ground relationship

Gestalt principles
Proximity
Similarity
Continuity
Connectedness
Closure

PERCEPTION

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

Human factors

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

STATES OF CONSCIOUSNESS

Biology of sleep

Biological rhythms

- Circadian rhythm (25 hr cycle)
 - Light (superchiasmatic 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

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

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"

Psychoactive drugs

Tolerance/withdrawal

- Involves neuroadaptation

Addiction

Depressants

Alcohol

- Reduces inhibitions
- Impairs activity of frontal lobe
- Disrupts formation of LTM

Barbiturates (tranquilizers)

- Reduce anxiety, mimic alcohol
- #### Opiates (endorphin agonists)
- Morphine, heroin, oxycontin

Stimulants

Amphetamines/meth

Cocaine—rush/crash

Ecstasy—also a hallucinogen

- Stimulates serotonin
- Interferes w/sleep, impairs memory, reduces immune response

Hallucinogens

LSD—serotonin agonist

Marijuana—cannabinoid agonist

- Disrupts memory formation
- Reverse tolerance

MOTIVATION

Physiology of hunger

Keys' research
Cannon's research
Body chemistry
 Insulin up, glucose down
 Hypothalamus stimulation
 Lateral—hunger increases
 Orexin produced
 Ventromedial—hunger declines
Hormones
 Ghrelin—hunger increases
 PYY—suppresses hunger
Proteins
 Leptin—decreases hunger
 Orexin—increases hunger

Psychology of hunger

Neophobia (avoidance of unfamiliar food)
Eating disorders
 Anorexia nervosa
 At least 15% underweight
 Continue to view self as fat
 Bulimia nervosa
 Binge-purge pattern
 Not necessarily low weight
Obesity (30% in US)

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)

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 sex

Kinsey report
Masters & Johnson research
 Sexual response cycle
 Excitement—plateau—orgasm—resolution (refractory period)
 Sexual disorders
 Premature ejaculation
 Erectile dysfunction
 Orgasmic disorder
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, 1-2% 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)

EMOTION

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 amygdale)

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

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

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)

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

COGNITION

Concepts

Metacognition—wow!
Organization:
Hierarchies
Prototypes

Problem solving

Barriers:
Fixations:
 Functional fixedness
 Mental set
Confirmation bias
Overconfidence
Approaches:
Trial and error
Insight
Algorithm
Heuristics
 Representativeness heuristic
 Based on prototypes
 Availability heuristic
 Based on vivid experience
Issues:
Framing (wording)
Belief bias
Belief perseverance
Illusory correlation
Memory reconstruction
Self-serving bias

Intuition

Factors:
Blindsight
Right-brain thinking
Moral thinking (Haidt's theory)
Automatic processing/implicit memory
Creativity
Thin slices
Subliminal stimulation
Microexpressions
Dual attitude system
 Unconscious/conscious
 Implicit/explicit
Gut-level/rational

About Language

Structure
Phonemes
Morphemes
Grammar
Semantics
Syntax
Appearance
Babbling (approx. 4 months)
One-word stage (1 year)
Two-word stage (telegraphic speech)
 At 1 1/2 years
No 3 word stage

Theories of language development

Skinner—nurture
Behaviorist explanation
 Follows usual learning pattern
 (Reinforcement/punishment)
Chomsky—nature
Language acquisition device (innate)
Evidence:
 * Overregularization of language
 (or overgeneralization)
 Ex: "I goed to the store."
 * Common elements
 Surface structure (syntax)
 Deep structure (semantics)
 * Critical period
 Age 7 for language acquisition
 Cochlear implants
 Best results 2-4 year olds

Language & Thinking

Whorf's linguistic determinism theory
(or linguistic relativity theory)
- language shapes thinking
Evidence: bilingual advantage
Thinking in images (process simulation)
Animal thinking
 * Concept formation
 * Theory of mind—similar to 2 yr. old
 * Language: honeybees, ape language

INTELLIGENCE

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
Stenberg's triarchic theory
- analytical, creative, practical
Emotional intelligence (EQ)
Relates to success in family, career

Creativity

Convergent vs. divergent thinking
How to maximize:
Develop expertise
Keep a venturesome personality
Stay intrinsically motivated
Live in creative environment

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

Assessing intelligence

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

Creating 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

PSYCHOLOGICAL DISORDERS

Medical model

Foundation

- U**—unjustifiable
- M**—maladaptive
- A**—atypical
- D**—disturbing to self or others

Measurement

DSM-IV-TR (classification of disorders)

- Axis 1—clinical syndrome?
- Axis 2—personality disorder or mental retardation?
- Axis 3—general med. Condition?
- Axis 4—psychosocial or environmental problems?
- Axis 5—global assessment of functioning (0-100)

Diagnostic labeling

Advantages:

- Appropriate treatment
- Stimulate research
- Payment of insurance

Disadvantages:

Rosenhan's study—labeling leads to self-fulfilling prophecies? Cause interpretations of behavior?

Insanity—when?

- M'Naughten rule—is the defendant unable to distinguish right from wrong because of mental defect?
- 90% of those with disorders are not dangerous to others

Anxiety disorders (#7)

Panic disorder

- strikes suddenly
- panic attacks (seem like heart attacks)
- often linked to agoraphobia

Phobias—focused fear

Obsessive-compulsive disorder (OCD)

- Obsessions—thoughts
- Compulsions—behaviors

PTSD (post-traumatic stress disorder)

GAD (generalized anxiety disorder)

Free-floating anxiety

Source:

- Behavioral interpretation
 - * Classical conditioning & generalization
 - * Negative reinforcement maintains the fear
- Observational learning?
- Biology (natural selection, genes, activity in anterior cingulate cortex, activity in amygdala, GABA)

Dissociative disorders (#10)

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

Mood (affective) disorders (#6)

Depression (common cold of disorders)

Major depressive disorder (more than 2 weeks of debilitating depression)

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

Self-defeating beliefs (learned helplessness)

Optimistic Explanatory Style

Stable, global, internal (depressed)

Temporary, specific, external (non-depressed)

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

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 (#5)

Considered the “cancer” of 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)

Patterns:

Paranoid schizophrenia
Disorganized schizophrenia
Catatonic schizophrenia
Undifferentiated schizophrenia
Residual schizophrenia

Explanations of schizophrenia

Brain abnormalities

Dopamine overactivity

- * D4 receptors 6 X normal

Glutamate—may relate to negative symptoms

Enlarged ventricles

Shrunk 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

Personality disorders (#16)

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

Somatoform disorders (#8)

Somatization disorder—body problem caused by psychological problem (ex. ulcers)

Conversion disorder—psychological problem converted to non-biological physical problem (ex. paralysis in “Heidi”)

Hypochondriasis

THERAPIES

Psychoanalysis

Based on Freudian ideas
Repressed ideas must be accessed
Insight is the goal
Methods
Free association
Resistance
Dream analysis
Latent content most important
Transference
Duration
Years
Psychodynamic therapy—same foundation, less intense

Humanistic

Focus: boost self-actualization (Maslow)
Become more self-accepting
Method:
Client-centered therapy
- active listening (no judgment)
Reflect feelings of client
- non-directive
Therapist: genuineness, unconditional positive regard, empathy
Goal: promote personal growth, personal responsibility

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 neg. response for unwanted behavior)
Operant conditioning applications:
- punishment (bed-wetting buzzers)
- behavior modification
* token economy

Cognitive therapy

Aaron Beck (cognitive triad)
Albert Ellis (RET)
Stress inoculation training (change in thinking patterns to stress)
Cognitive-behavioral therapy

Group/family therapy

Saves time/money
Humanistic foundation
Often as effective as individual therapy

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
Other unusual treatments:
EMDR—For trauma victims
Light exposure therapy—for SAD

Biomedical therapy

1950's—deinstitutionalization
Antipsychotic medications (D2 antagonists):
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)
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)
rTMS (magnetic stimulation)
Surgery: Lobotomy (Moniz)

SOCIAL PSYCHOLOGY

Attribution theory

Internal vs. external attributions

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

Attitude change

Cognitive/affective components of attitudes (attitude vs. opinion)

Action affecting attitudes

- * Foot-in-the-door
- * Door-in-the-face

Persuasion

- * Central route to persuasion
- * Peripheral route to persuasion

Role playing (Zimbardo prison study)

Cognitive dissonance (Festinger)

Group influence

Conformity (Asch study)

- * chameleon effect
- * mood linkage (mimicry)

Normative social influence vs. Informational social influence

Obedience (Milgram's study)

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 (Janus)

- * influenced by desire for harmony

Minority influence

- * self-confidence, determination key

Prejudice (attitude) — leads to discrimination (behavior)

- * Social roots: social inequality, blame-the-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 Eliot study—children and stereotyping
- self-fulfilling prophecies

Aggression and conflict

Biology: genetics, amygdala, decreased frontal lobe activity, testosterone levels

Psychology

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

Conflict

- * Social traps
 - pursue self-interest, everyone loses
- * Enemy perceptions
 - mirror-image perceptions

Attraction and altruism

Passionate love (two-factor theory) vs. companionate love (key is equity, self-disclosure)

- * Physical attractiveness key
- * Similarity
- * Proximity (mere exposure effect)

Altruism

Bystander affect

- * diffusion of responsibility
- * pluralistic ignorance
- * Explained by social exchange theory
 - * Reciprocity norm
 - * Social responsibility norm

Peacemaking, GRIT

- * Superordinate goals