

# 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, promote survival

### 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

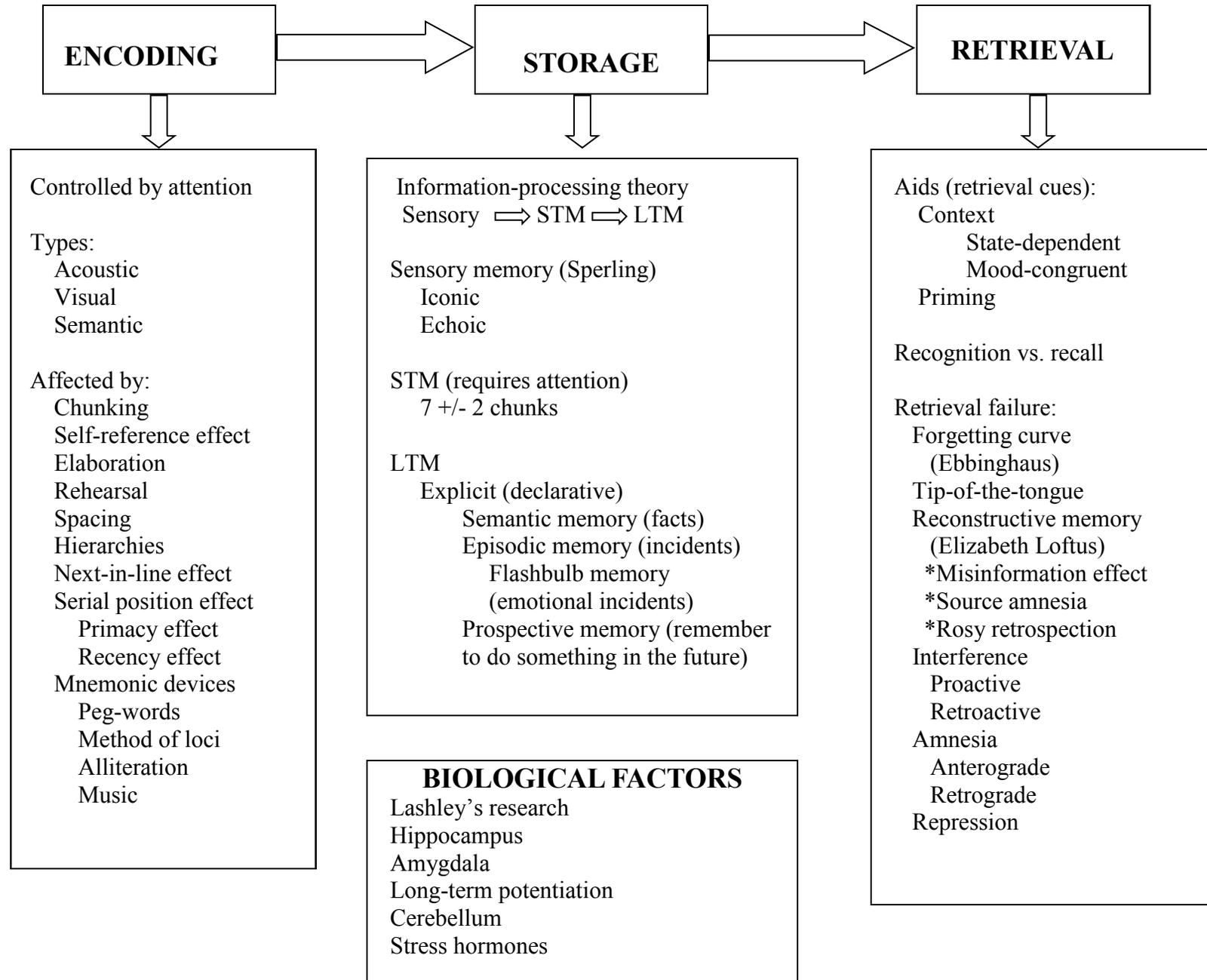
Increase of violence, aggression

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

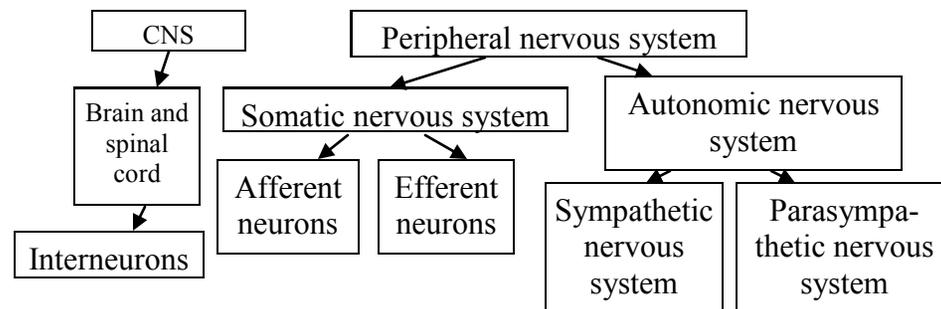
### Midbrain:

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, organization, 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, oxycotin

### 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 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

## 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)

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

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

Diathesis-stress model

## 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 (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)  
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