

Willhelm Wundt

Video: <http://youtu.be/IWv3tQUY-9k>

1879
first psychology lab in Leipzig Germany
Structuralist

youtube:IWv3tQUY-9k

It's all about STRUCTURE

Structuralists believe consciousness = basic elements combine to make different perceptions. Wanted to discover form of mental experience.

Introspection reporting own conscious thoughts and feelings
Wundt, Titchener

Yale Univ Psychology classes

Video:
<http://youtu.be/P3FKHH2RzjI&list=PLQBxBn90xZalvS5gxsvErSm7cV8BKuClx>

youtube:P3FKHH2RzjI&list=PLQBxBn90xZalvS5gxsvErSm7cV8BKuClx

Research Methods

independent variable = cause
experimental group = exposed to cause
control group = not exposed to cause
dependent variable = effect (measures how subjects behave)

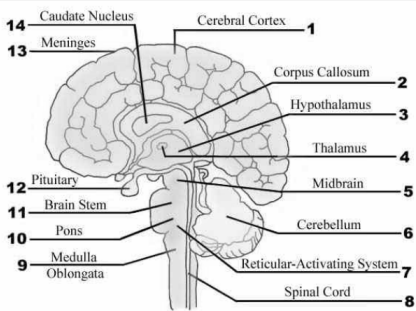
Research Methods (cont)

blind study = subjects don't know if they get drug or placebo
double-blind study = subjects & researchers don't know who gets drug/placebo
correlation coefficient = describes strength of relationship

Consciousness

Consciousness = a state of being aware and reflecting on the environment around us, not simply reacting to it
Circadian rhythm = predictable factors of the human body "through the day"
circa around, *dian* day

Brain



Brainstem (Medulla) = breathing & heartbeat
Reticular formation = arousal, sleep, filters stimuli
Cerebellum = voluntary movement

limbic system (Hippo HAT)
- HIPPOcampus = memory
- Hypothalamus = hunger, thirst, sexual behavior
- pituitary gland = hormones
- Amygdala = fear, anger
- Thalamus = touch, taste, sight, hear

Crash Course Video - know your brain

Limbic System

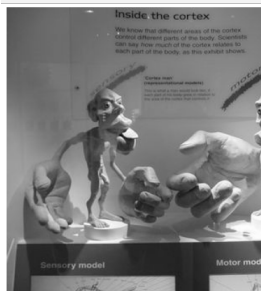
Video: <http://youtu.be/GDIDirzOSI8>

Hippo
H
A
T

Hippocampus (campus = learning/memories)
Hypothalamus (FFFF = Fight, Feed, Mating)
Amygdala (emotions)
Thalamus (Tell 'em = sense smell))

youtube:GDIDirzOSI8

Brain Power

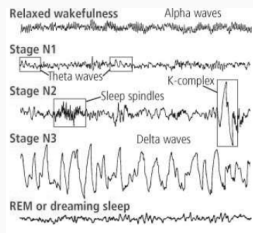


motor & sensory homunculi
proportionate representation
brain's dedication to the part of the body responsible for motor functionality.

The more brain power involved in planning, execution and control of body part's movements, the more of the body part is on the clay figure giving a simple, yet accurate representation of the brain's dedication to different areas of motor functionality.

<http://leesalittle.com/tag/cortex/>

Sleep



When **awake** the brain produces **alpha waves** which are relatively slow

stage 1 breathing slows with irregular, erratic brain waves. alpha waves cease and are replaced with **theta** waves

Stage 2 deeper relaxation/occasional bursts of rhythmic waves "sleep spindles" and K-complexes

Stage 3 large slow **delta** waves. transition to Stage 4

Stage 4 stronger more consistent **delta** waves.

These last 2 stages are referred to as slow-wave sleep

REM Sleep dreams

Sleep Disorders

Insomnia = recurring difficulty falling asleep.

Narcolepsy = sudden and uncontrollable attacks of sleep during waking hours.

Sleep apnea = stop breathing during sleep which wakes them long enough to breathe. This can occur 100's of times a night

Gestalt



theory of mind of the Berlin School of experimental psychology.

Gestalt psychology tries to understand the laws of our ability to acquire and maintain meaningful perceptions in an apparently chaotic world.

Roots in theories by Hume, Goethe, Kant.

Max Wertheimer's unique contribution was to insist that the "gestalt" is perceptually primary, defining the parts it was composed from, rather than being a secondary quality that emerges from those parts.

Perceptual Sets

Video: http://youtu.be/n46umYA_4dM

predispositions to perceive one thing and not another.

Crying baby girl - weak & scared
Crying baby boy - strong and mad

Expect the mail man and hear noises but he is not there.

youtube:n46umYA_4dM

Phi Phenomenon



optical illusion of perceiving continuous motion between separate objects viewed rapidly in succession

Youtube video for more about Gestalt psychology

Signal Detection Theory

Video: <http://youtu.be/gRQmTp6W3UA>

ability to notice stimulus varies with psychological factors including motivation, past experience, expectations

youtube:gRQmTp6W3UA

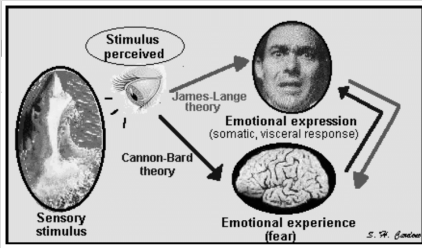
Theories of emotion

Cannon-Bard: crazed dog = Arousal & Fear

James-Lange: crazed dog = arousal THEN fear

Two-Factor: crazed dog = Arousal & Label (cognitive) THEN fear

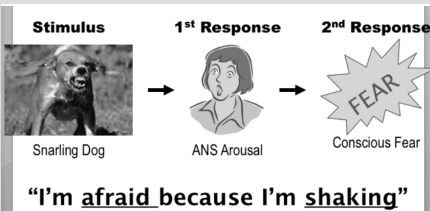
Canon-Bard Theory



see stimulus - generates arousal & emotional experience at the same time. Information to sympathetic nervous system (arousal) and cortex (subjective experience)

Dog growls = heart rate increases + realize I'm afraid

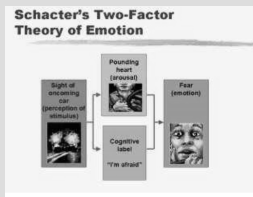
James-Lange Theory



see it = feel emotion = become afraid because I feel my heart pounding

Without arousal I wouldn't be afraid

Two Factor Theory of Emotion



Stanley Schacter's

Emotions experienced depend on how arousal is labeled. What makes each experience different is what you call it.

If you decide you're aroused because someone insulted you = angry

Noam Chomsky

Video: <http://youtu.be/Zg1bHzBoggk>

Language development children have language acquisition device - universal built in mental system that steers us toward interpreting and using language in particular ways.

youtube:Zg1bHzBoggk

A good video describing his theory (1:47 BBC):
Noam Chomsky on Language Acquisition

Memory

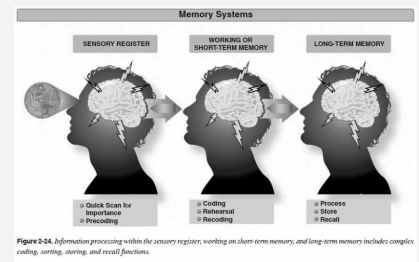


Figure 2-24. Information processing within the sensory register, working on short-term memory, and long-term memory includes complex coding, sorting, storing, and recall functions.

Sensory fleeting awareness of what senses detect

short term (working) keep information long enough to solve problems

long term unlimited storage

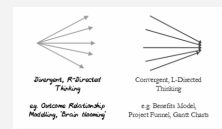
Charles Spearman

Video: <http://youtu.be/-hMhpB8ikR8>

Labeled general intelligence "g" factor
Cognitive

youtube:-hMhpB8ikR8

Joy Paul Guilford



United States psychologist, best remembered for his psychometric study of human intelligence, including the distinction between convergent and divergent production

Convergent thinking generally means the ability to give the "correct" answer to standard questions that do not require significant creativity, for instance in most tasks in school and on standardized multiple-choice tests for intelligence.

Divergent thinking = creativity = thinking "outside the box"

Psychological Disorders - Origins

Medical - caused by biological reasons (injury, genetics, drugs)

Psychoanalytic - childhood conflicts, unconscious, misdirected anger

Cognitive - patterns of thinking are abnormal, success because of others (luck, generous), fail because of self (stupid, no talent)

Learn/Behavior - problem behavior is the problem, some type of classical conditioning or reinforcement has occurred for behavior to continue

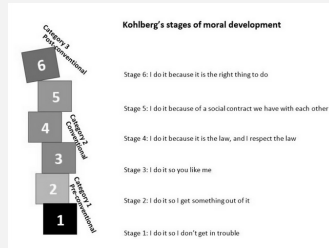
Erikson's 8 Stages of Development

Video: <http://youtu.be/3BcwntGAB34>

youtube:3BcwntGAB34

1. Nurturing = trust vs mistrust (baby-1yr)
2. Autonomy vs shame doubt (toddler-2 yr)
3. initiative vs guilt (preschool 3-5 yrs)
4. industrious vs inferior (6-12 yrs)
5. identity vs role confusion (12-18)
6. intimacy vs isolation (18-40)
7. generativity vs stagnation (40-65)
8. integrity vs despair (65 & up)

Kohlberg



3 stages of moral development

1. Pre-moral a. Obedience v.s. development

2. Conventional c. good boy, girl-boys and girls are good so they are seen as being a good person. d. law and social order start

3. Post-conventional e. Social Contract f. universal ethical principle

PERSONALITY - Individual Difference

Video: <http://youtu.be/oWpRKJPC17M>

youtube:oWpRKJPC17M

Measure ways people differ
Traits - patterns of behavior

Allport (boy on train) to Freud

Define personality - stable/lasting behavior patterns/motivations.

Eysenck - stable/unstable, introvert/extrovert

Big 5 Traits OCEAN

1. openness - questioning, independent, curious
2. conscientiousness - dependable, self control
3. extraversion - outgoing, socially adept
4. agreeableness - conforming, likeable
5. neuroticism - excitability, anxiousness

Psychological Therapies

Psychoanalytic developed by Freud.

Problems from urges vs. social pressure. repressed behavior in childhood. Help individual recognize conflict, make it conscious & deal with it in socially acceptable way. - Free association "patient"

Humanistic help people achieve insight to causes of behavior, emphasize life now and future. "client". Client-centered therapy non directive. people have own insight. provide positive regard & environment. active listening

Cognitive change thinking so see world accurately & react rationally

Learning/Behavioral

Biological/Medical drugs surgery alter brain functions

THERAPY - Biological Medical Approach

Rely on drugs or surgery. Alter the way brain functions

Depression = low serotonin neurotransmitter
Anti-depressants (Prozac, Pail, Zoloft) prevent re-uptake of serotonin (SSRI) result in elevated mood

THERAPY - Biological Medical Approach (cont)

Anti-anxiety drugs (Librium, Valium) reduce arousal, depress activity in CNS
 Anti-psychotics (Clozapine, Thorazine) treat symptoms of schizophrenia. block operation of neurotransmitter dopamine
 Barbiturates (tranquilizer) (opiate)
 Opiates = opium, decreases nervous system, addictive, side effects

Aging Theories

Prominent Psychological Theories Of Aging

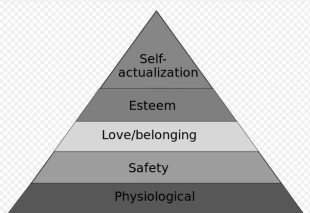
- Longevity Theory
- Activity Theory
- Disengagement Theory
- Continuity Theory



Disengagement - mutual withdrawal

Activity - keep active and age well

Hierarchy of Needs



proposed by Abraham Maslow in his 1943 paper "A Theory of Human Motivation" in Psychological & fully expressed in his 1954 book *Motivation and Personality*

studied what he called exemplary people such as Albert Einstein & the healthiest 1% of the college student population

largest, most fundamental levels of needs at the bottom and the need for self-actualization at the top

Statistics

High stakes	• Cronbach's Alpha: 0.90 or higher (excellent)
Medium stakes	• Cronbach's Alpha: 0.70 or higher (good/acceptable)
Low stakes	• Cronbach's Alpha: The higher the better but not always possible to get high values (e.g., short formative quizzes)

descriptive statistics (mean, median mode)

Standard deviation - index of how widely scattered scores tend to be around mean

Inferential statistics allow inferences about populations based on sample. Use **statistical significance** as some differences could have happened by chance.

Coefficient near .00 if correlated by chance.

Bigger the coefficient is for the sample, the more reliable correlation.

Coefficients > +.70 are generally reliable. (+ or - correlation)

Stanley Milgram Obedience Experiment (May, 1962)

Video: <http://youtu.be/DZ-F6Waua3Y>

youtube:DZ-F6Waua3Y

0:00-9:15 Introduction and instruction
 9:26-12:05 First test subject
 12:05-16:02 Second test subject
 16:02-21:58 Explanation and procedure
 21:58-39:18 Third test subject
 39:18-44:19 Review and variations of tests

SOCIAL PSYCHOLOGY - Cognition

how we process information about others

Attribution theory - explanations generated for others behavior

- dispositional (internal) - explain behavior inside person (personality, intelligence, maturity)

- situational (external) - explain behavior outside (luck, interference from others, social etiquette)

actor-observer difference - observers

attribute others' behavior to dispositions but own behavior to situations. Actor more aware than others of how his behavior changes from 1 situation to another

cognitive dissonance theory - behave inconsistent with attitudes = dissonance (unpleasant tension) must explain behavior due to situation

Sensory Adaptation & Habituation

Video: <http://youtu.be/PnKSA6fGp6w>

youtube:PnKSA6fGp6w

Sensory Adaptation - neural receptors reduce sensitivity to **continual** stimulus (ie - adapt hot/cold water after brief time, eyes adjust dark room (cones 10 min, rods 30), smell own house)

Habituation - decreased response to stimulus after repeated behavior, used to elicit stronger response (alcohol 1st drink vs alcoholic taking a drink, favorite food, living near train track)

sensitization repeated intense stimulus increases response to weaker

Informational Social Influence Theory

Video: <http://youtu.be/h6HLDV0T5Q8>

4:35 Foot in the Door
5:30 Stanford Prison Experiment
8:00 Festinger's Theory of Cognitive Dissonance - when our thoughts differ from others we feel discomfort we want to resolve

youtube:h6HLDV0T5Q8

Informational Social Influence Theory - When we are not sure what to do we copy other people, especially in crisis or if the other person is an expert

Rorschach



Ink Blot tests. Schizophrenics were found to answer questions about ink blot cards very differently than most people.

A neat jpg of the cards as well as common answers can be found [here](#).

Edward Thorndike

Video: <http://youtu.be/fanm--WyQJo>

Cats & puzzle boxes.

youtube:fanm--WyQJo

Thorndike studied instrumental conditioning, which involves an increase in the probability of a response occurring as a result of a positive outcome. This type of learning would come to be called operant conditioning by B.F. Skinner.

Law of Effect behavior changes because of consequences

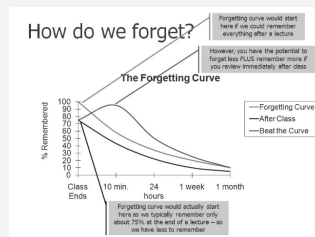
Yerkes-Dodson Law

Video: <http://youtu.be/8CA6Di3ix0k>

moderate levels of arousal lead to optimal performance

youtube:8CA6Di3ix0k

Forgetting Curve



Video link about the forgetting curve.

Video link about how to learn efficiently.

Functionalism and Structuralism

Video: <http://youtu.be/qBe9qjX-Ahg>

youtube:qBe9qjX-Ahg

Edward Titchener 1867-1927

Video: http://youtu.be/EzQ9D5nm_wE

First Psychology lab in the U.S. (1892 Professor at Cornell)

Studied under Wundt

Structuralism, Stimulus Error, Introspection

Analyze mind

1. identify structure elements
2. how they are grouped
3. cause of specific arrangement of elements

youtube:EzQ9D5nm_wE

7 Perspectives

Neuroscience = physical & brain (makes emotions/memories)
Evolutionary = Darwinism, survival of fittest, inherited behavior
Social-cultural = society & culture contribute to behavior
Psychodynamic
Behavioral
Cognitive
Humanistic

B.F. Skinner

Video: <http://youtu.be/T-d6jypCsUw>

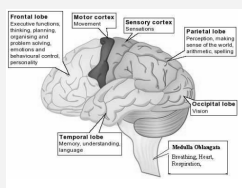
youtube:T-d6jypCsUw

Behaviorism, -1960's
behavior of organisms

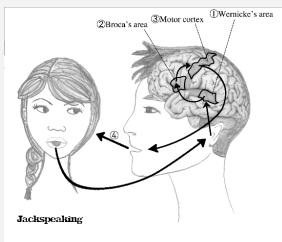
Blank Slate = molded by environment..

Pigeon operant conditioning, reward system

Brain Organization



Brain Organization



Cerebral cortex (outer cover) = motor, cognitive, sensory processes

Left/Right Hemispheres

Frontal Lobes = coordinating movement in higher level thinking (planning & predicting consequences of behaviors)

- Wernicke's area = language comprehension
- Broca's area = speech production

Parietal lobes - top of head, behind frontal lobes = touch, hands/feet

Temporal lobes - above parietal, sides of ears = hearing

Occipital lobes - base of skull in back = vision (ocular)

Left & Right Brain

Video: <http://youtu.be/82tIVcq6E7A>

Very interesting!

youtube:82tIVcq6E7A

Biological Approach

focus on understanding how physiological & biochemical processes = psychological phenomena
genes, nervous system, hormones, neurotransmitters

RESOURCES

Link to Quizlet cards about Psychology vocabulary words.

Sleeping

Video: <http://youtu.be/rMHus-0wFSo&index=9&list=PL8dPuualjXtOPRKzVLY0jY-uHOH9KVU6>

youtube:rMHus-0wFSo&index=9&list=PL8dPuualjXtOPRKzVLY0jY-uHOH9KVU6

Sleeping Disorders. What happens when you sleep.

Mike Birbiglia talks about his sleepwalking disorder. Funny!

Dream Theories

Dream Theories		
Theory	Explanation	Critical Considerations
Freud's wish-fulfillment	Dreams provide a "psychic safety valve"—expressing otherwise unacceptable feelings; contain manifest (remembered) content and a deeper layer of latent content—a hidden meaning.	Lacks any scientific support; dreams may be interpreted in many different ways.
Information-processing	Dreams help us sort out the day's events and consolidate our memories.	But why do we sometimes dream about things we have not experienced?
Physiological function	Regular brain stimulation from REM sleep may help develop and preserve neural pathways.	This may be true, but it does not explain why we experience meaningful dreams.
Activation-synthesis	REM sleep triggers impulses that evoke random visual memories, which our sleeping brain weaves into stories.	The individual's brain is weaving the stories, which still tells us something about the dreamer.
Cognitive theory	Dream content reflects dreamers' cognitive development—their knowledge and understanding.	Does not address the neuroscience of dreams.

Dream Theories

Freud

manifest content of latent desires.
Disguising the wish dreamer avoids anxiety

Activation synthesis theory

brain's neurons fire randomly during sleep, as we wake, construct dream to make sense of images

Information processing

way to consolidate information, sort thru day's events

Physiological Functions

dreams stimulate the brain which may help build neural connections

Gestalt

Video: <http://youtu.be/ZWucNQawpWY>

Gestalt psychologists rules for brain piecing together meaningful experiences from fragments of sensation.

youtube:ZWucNQawpWY

Perception

Gestalt (German for "a whole" or "form") Psychologists were among the first to study how the brain makes things from fragments of sensations.

Depth perception-

both eyes work together to gather Binocular cues, which use the space between the eyes (retinal disparity) and how much the eyes turn inwards, towards the nose (convergence) to roughly estimate distance.

Monocular cues=one eye.

Linear perspective=parallel lines appear to converge.

Motion parallax-refers to apparent movement of stable objects as we move.

Perceptual sets: predispositions to perceive one thing and not another will affect the way reality is viewed

Sensation & Perception

Video:
<http://youtu.be/unWnZvXJH2o&list=PL8dPuuaLjXtOPRKzVLY0jJY-uHOH9KVU6&index=5>

Sensation - Bottom up (vision, hearing, smell) receive and relay outside information to the brain

Perception - Top Down brain interprets & organizes that information

youtube:unWnZvXJH2o&list=PL8dPuuaLjXtOPRKzVLY0jJY-uHOH9KVU6&index=5

Motion parallax

Video: <http://youtu.be/iMnvakdfIUM>

Apparent movement of stable objects as we move. Drive down the road and close objects appear to be moving backward and the nearer they are the faster they move. Far away objects move with you but more slowly as they get farther away.

Youtube video for more about [Motion parallax](#)

RESOURCES

CLEP® Introductory Psychology Book + Online (CLEP Test Preparation)

Code inside front cover gives you access to online tests. Practice tests 1 & 2 are the same online as in the back of the book but the online resource gives you an assessment test which is a bit shorter than the other 2 which are 95 questions each.

Find it on [Amazon.com](#)

Prosopagnosia

HERE is a very interesting article about Prosopagnosia (Face Blindness).

Includes information about: Broca, Wernicke, déjà vu, Capgras syndrome

By Oliver Sacks

Invisible Gorilla

Video:
<http://youtu.be/16&v=UtKt8YF7dgQ>

Attention, intuition

youtube:16&v=UtKt8YF7dgQ

Cognitive Approach

reaction to behaviorism

Focus on explain behavior in terms of expectations, feelings, thoughts

problem solving, attention, expectations, memory, thought processes

Jean Piaget

Cognitive Development

Sensorimotor stage (0-2) can't differentiate self from environment

preoperational (2) stable world, language, symbols, fantasy/reality, object permanence, no logical reasoning, lack conservation, egocentric

concrete op. (7-11) logic rules, concrete, cause/effect, role taking

formal op. (12-) logic of science, abstract thinking, metaphors

assimilation = interpret sights based on current understanding

accommodation = changed understanding

Jean Piaget (cont)

equilibrium = balance
disequilibrium = changes in child's understanding of world

Jean Piaget

Video: <http://youtu.be/TRF27F2bn-A>
 youtube:TRF27F2bn-A

Piaget's Schema, Assimilation, Equilibrium

Video: <http://youtu.be/3-A9SgbAK5I>

youtube:3-A9SgbAK5I

Schema = building block of knowledge

Assimilation = using an existing schema to deal with a new object or situation

Equilibrium = child's schemas can deal with most new information through assimilation

Accommodation = existing schema (knowledge) does not work, and needs to be changed to deal with a new object or situation

Franz Mesmer



18th century hypnotist

Trying to help patients with medical issues

Aligned their "magnetic forces" = *animal magnetism*

Hypnotized people fill social role (role play) behavior controlled by normal, conscious processes. Now used for pain control.

Psychological Disorders

Video: <http://youtu.be/wuhJ-GkRRQc&spfreload=10>

youtube:wuhJ-GkRRQc&spfreload=10

Intelligence

Video: <http://youtu.be/9xTz3Qjclol>

youtube:9xTz3Qjclol

Spearman "g" factor, factor analysis, spatial numeric reasoning,

Thurstone - psychometrics, 7 clusters of mental abilities

Gardner - multiple abilities in different forms, savant syndrome, , 8 intelligences

Sternberg - 3 intelligences, analytical, creative, practical

divergent thinking, emotional intelligence, eugenics,

Alfred Binet - mental age test (IQ)

Personality Theories

Video: <http://youtu.be/sUrV6oZ3zsk>

Social Cognitive

Individual Difference Trait

Psychoanalytic

Humanistic

youtube:sUrV6oZ3zsk

PERSONALITY - Social Cognitive

Social-Cognitive Theories on Personality

- **Internal Locus of Control** the perception that we can control our own fate.
- **External Locus of Control** the perception that chance or outside forces beyond our personal control determine our fate.
- **External Locus of Control** can lead to a state of **learned helplessness**.



Cognition. Proposed by "Bobo" Bandura

Interaction between traits & social contexts
 Watch & imitate others & think about how that affects us.

We are creators & products of the situations we surround ourselves with.

Personal control = how much control we have over our environment.

Reciprocal determinism - how people think and behave in their environment interacts to influence consistency of behavior

PERSONALITY - Humanistic

Perspective	Founding Theorists	The Viewpoint in a Sentence:
Psychodynamic	Sigmund Freud, Carl Jung, and others	People are viewed as struggling between their animal instincts and the pressures of socialization
Personality Trait	Gordon Allport and Hans Eysenck	People exhibit consistent psychological traits such as extraversion or deceitfulness.
Humanistic	Carl Rogers and Abraham Maslow	People are viewed as seeking personal growth and striving toward becoming their full selves.
Social-Cognitive	George Kelley and Walter Mischel	People behave according to how they cope with social pressures and solve social problems

People basically good

Carl Rogers "Self Theory" - person centered
 true self - talents, thoughts, desires, feelings
 self concept - what we think we are like
 ideal self - what we think we would like to be

self actualization - accept who you are
 conditions of worth - hinder self actualization

Self Esteem literature

Maslow rejected standard tests and measured self concept through therapy and questionnaires.

THERAPY - Psychoanalytic Approach



THERAPY - Learning/Behavioral

behavior modification

Use classical & operant conditioning to change problem behaviors directly. Believe many were conditioned to begin with so can be "un" conditioned.

Counterconditioning conditioning a new response incompatible with old

systematic desensitization relaxation

replaces anxiety systematically

flooding go straight into the fearful situation.

CR is extinguished

aversive conditioning unpleasant response associated (alcohol + drug creating nausea UR & CR)

token economy give token (poker chip/gold star) when desired behavior performed. tokens cashed in for tangible rewards

Nervous System

Video: http://youtu.be/OZG8M_IdA1M

Graded potential, action potential, refractory period

youtube:OZG8M_IdA1M

Testing Reliability

Video: <http://youtu.be/erRnFk0s9h8>

Test-retest reliability, internal consistency, split-half reliability

youtube:erRnFk0s9h8

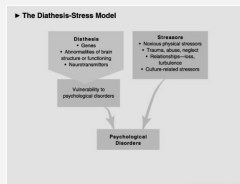
Cronbach's alpha - measures reliability (.70 or higher)

Validity, face validity (content), Predictive validity, construct validity

Standardized

see Quizlet cards for definition of terms

Diathesis-Stress Theory



Genetic predisposition (diathesis) + environmental factors (stress) = mood disorders

SOCIAL PSYCHOLOGY - Social Influence

direct/indirect pressures exerted by others to change one's behavior

foot-in-the-door technique - get compliance with small request first

door-in-the-face technique - make request so big it's turned down, then on to smaller request

lowballing - get commitment then increase effort/cost required to fulfill

conformity - change behavior to follow group norms

- Solomon Asch researcher used confederates to influence study results

- Stanley Milgram researcher people susceptible to demands of authority

SOCIAL PSYCHOLOGY - Aggression & Altruism

frustration-aggression hypothesis

aggression is always product of frustration and frustration leads to aggression (wrong, sometimes frustration = cry)

more testosterone = more aggression

aggressive cues - guns, knives, black clothing = higher levels of aggression among provoked people = **weapons effect**

altruism

SOCIAL PSYCHOLOGY - Aggression & Altruism (cont)

Kitty Genovese - raped and murdered 1964 in front of 38 witnesses who did not help
(**bystander effect**)

social-exchange theory = maximize rewards minimize costs (**minimax principle**)

Encourage helping behavior: **social**

responsibility norm help people who need it &

reciprocity norm help people who help us. **kin**

selection hypothesis helping family leads to our genes passed on

Whorfian Hypothesis

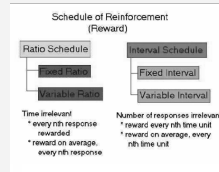
Video: <http://youtu.be/g0gkcY1SB-0>

a theory in linguistics: one's language determines one's conception of the world

The strong version says that language determines thought, and that linguistic categories limit and determine cognitive categories, whereas the weak version says only that linguistic categories and usage influence thought and certain kinds of non-linguistic behavior.

youtube:g0gkcY1SB-0

Interval Reinforcement



reinforcements after a response at end of a given time period

variable interval schedule time between reinforcements changes

fixed interval schedule occur on the same day each week

ratio schedules partial reinforcement schedules (reinforcement delivered based on the number of correct responses).

fixed ratio schedule correct number of responses required remains the same

variable ratio schedule number of required responses changes

Reinforcement

Something that feels good is reinforcement (not punishment)

Positive reinforcement - stimulus

a) presented

b) desirable

= feels good

(earn \$1.00 for every magazine sold = sell more magazines)

negative reinforcement - stimulus

Reinforcement (cont)

a) REMOVED

b) desirable

= feels good

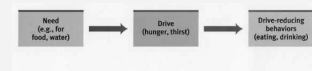
(take aspirin to remove headache)

interval schedule = odds of reinforcement go up with passage of time

ratio schedule = odds of reinforcement go up depending on how many responses are made

variable ratio - number of responses needed vary from one win to the next

Drive



Drive = disrupts homeostasis

Instinct = complex behavior, unlearned, same throughout species (baby smiles when eating sweets)

drive reduction theory - physiological need creates an aroused tension state (drive) motivating fulfillment of the need -- homeostasis

How your ear works

Video: <http://youtu.be/HMXoHKwWmU8>

Ear Drum
Ossicles (Hammer/Malleus, Anvil, Stirrup)
Cochlea (hair cells on basilar membrane)
receptors for hearing

youtube:HMXoHKwWmU8

William James

Conscience and behavior helped people and animals adjust to the environment
Functionalism
Principles of Physiological Psychology (1st Psychology text book 1890)

Functionalism Approach

Video: <http://youtu.be/fBTHhnWQgHw>

1890
William James - Father of modern Psychology

People function like a machine (industrial revolution)
Based on evolutionary thoughts (close to Darwin's "origin of species")

youtube:fBTHhnWQgHw

It's all about FUNCTION

How mental experiences were adaptive & functional for people.
Believed consciousness and behavior in general, helped people/animals adjust to environments. Understand "mind" = understanding what the mind has accomplished
William James

Behaviorist Approach

learned responses to predictable patterns of environmental stimuli
Pavlov (classical conditioning)
Skinner (operant conditioning)
study animals to apply to humans

Associative Learning

Video: http://youtu.be/qG2SwE_6uVM

youtube:qG2SwE_6uVM

Subject links together certain events, behavior, stimuli in process of conditioning.

Classical Conditioning - Pavlovian, reflexive, elicited, pair 2 stimuli, CS + US, stimuli appear regardless of learner's behavior

Operant Conditioning - learning an association between stimulus and response
(Reinforcement = increase in behavior
Punishment=decreases behavior) BF Skinner

Observational Learning - we can learn by watching others

John B Watson

Video: <http://youtu.be/9hBfnXACsOI>

youtube:9hBfnXACsOI

1878 – 1958
Behaviorist. established the psychological school of behaviorism.
Conducted research on animal behavior, child rearing, and advertising

"Little Albert" experiment (condition fear of a white rat into "Little Albert", an 11-month-old boy)

How your brain works

Video: <http://youtu.be/JiTz2i4VHFw>

Priming, Fast brain, Slow brain

youtube:JiTz2i4VHFw

Neurons

Video: <http://youtu.be/x4PPZCLnVKA>

Sensory (Afferent = To cell) receive info from senses

Motor (Efferent = Away from cell) from spine/brain to signal muscle contractions

youtube:x4PPZCLnVKA

Inter (Association = connecting) Think, see, perceive

Neurotransmitters

Electrical & chemical process
Dendrites, axon, myelin sheath
neuron rest = -70 mV

Glia = "neuronal glue" hold neurons together, provide nutrients

Neurotransmitters

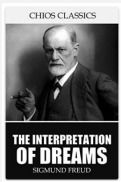
Video: <http://youtu.be/W4N-7AlzK7s>

youtube:W4N-7AlzK7s

Psychodynamic Approach

thoughts feelings behaviors come from interaction of drives & society restrictions on your ability to express them
Freud (sex/ aggressive drives most important)
Much behavior unconscious & rooted in childhood

Sigmund Freud



1886 specialized in nervous disorders (talking cure)
free associate

Uber Coca 1st publication (about benefits of cocaine)

1900 *interpretation of dreams* psychoanalysis

ID - pleasure principle (immediate gratification, impulsive) (devil)

EGO - reality principle (mediates between id & superego) (self)

SUPEREGO - morality principle (social part, get along with others) (angel)

Phobia - cause when you want something you can't have

FREUD - Psychosexual Stages

Video: <http://youtu.be/mQaqXK7z9LM>

Psychosexual stages

1. Oral stage
2. Anal stage
3. Phallic stage

youtube:ZWucNQawpWY

Defense Mechanisms

Freud

regression returning to earlier way of behaving (adult throwing temper tantrum)

rationalization attempts to justify irrational behavior with rational arguments

projection attributing characteristics you don't like in yourself to other people

reaction formation involve doing opposite of what you really want to do

Sublimation channeling of impulses or energies regarded as unacceptable, especially sexual desires, toward activities regarded as more socially acceptable, often creative activities

displacement anger is directed elsewhere not necessarily socially acceptably (kick the dog instead of your boss)

Humanistic Approach

people aren't merely machines with determined behaviors.

Motivated by desire for optimal growth and development

self-actualization

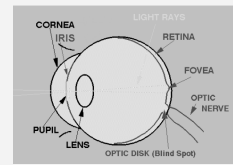
All have unique desires/skills/needs. Must be able to express them.

People basically good, focus on positive aspects of development.

Naturalistic Observation

inter-judge, inner-rater, inter-observer
Studied as occurs in real-life settings.

Eye



two photoreceptors in retina, **rods & cones** - change physical light energy into neural messages (transduction)

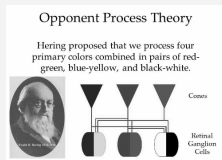
The **rods** more numerous, (120 million), & more sensitive than cones. But they're not sensitive to color.

The 6 to 7 million **cones** provide eye's color sensitivity. They're more concentrated in the central yellow spot (**macula**). In the center of that region is the "**fovea centralis**", a 0.3 mm diameter rod-free area with very thin, densely packed cones.

Eye

iris = controls pupil size and amount of light
optic nerve = eye signals to brain
retina = light sensitive inner eye surface
lens = between pupil and retina, focuses light

Opponent Process Theory



There are some color combinations that we never see, such as reddish-green or yellowish-blue.

Opponent-process theory suggests that color perception is controlled by the activity of three opponent systems.

Three independent receptor types all have opposing pairs: white and black, blue and yellow, and red and green.

Young-Helmholte Theory

Video: <http://youtu.be/JzI9VPnA3OY>

theory of color vision = the sensation of any color can be achieved by the superposition of pure red, green and blue colors

(video mentions color blindness)

youtube: [JzI9VPnA3OY](http://youtu.be/JzI9VPnA3OY)

Sensation

Psychophysics-relating to sensation.

Absolute threshold = the intensity needed for stimulus to be detected 50% of the time it is presented

Just noticeable difference (jnd) or the difference threshold = minimum stimulation required for detection.

Weber's law = Difference is harder to detect in more intense stimuli.

Sensory adaptation = prolonged exposure to an unchanging stimulus causes nerves to fire less and detection diminishes.

Sensation=related to transforming energy from outside stimulus into neural energy to be used for perception.

Weber's Law

Video: <http://youtu.be/wVhiezByMSU>

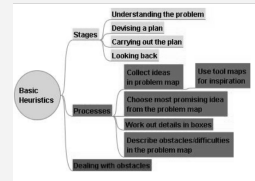
difference threshold increases in proportion to the intensity or magnitude of stimuli. Difference harder to notice with more intense stimuli than weaker ones.

youtube: [wVhiezByMSU](http://youtu.be/wVhiezByMSU)

Difference in 40 - 60 watt bulb compared to 70 - 90 watt bulb (20 watts difference)

"Vader's" Law :)

Heuristics



representative heuristic - how similar or "representative" one event is. Assessing similarity of objects and organizing them based around the category prototype.

availability heuristic - judging the likelihood that an event will happen from what has happened in the past

heuristics - judgmental shortcuts generally get us where we need to go – quickly – but at the cost of occasionally sending us off course

(**algorithm** - always produces the answer, but takes longer)

Psychological Disorders

Anxiety - dread, fear, terror

- Generalized - persistent but don't know source, sweaty palms, shake, nail bite
- Panic - sudden onset episodes
- OCD - thoughts & behavior

Mood - depression, mania or both

- Major - 2 weeks of sadness, hopeless, discouragement

Psychological Disorders (cont)

- Bipolar

Dissociative - fragmented personality

- Amnesia - can't remember personal info

- Fugue - leaves work, confused, assumes new identity

- Identity Disorder (multiple personality)

Schizophrenia - hallucinations, delusions

- Paranoid - believe famous, delusions of grandeur or persecution

- Disorganized - disorganized speech, inappropriate behavior

- Catatonic - odd motor activity, echopraxia, echolalia

Somatoform - physical symptoms can't be explained medically

- Conversion - impaired motor/sensory function

- Hypochondria

Personality - behavior inconsistent to culture

- Paranoid - suspicious, distrustful (not delusional)

- Antisocial - impulsive, no conscience

- Borderline - relationship/self image problems

- Narcissistic - needs admiration

PERSONALITY - Psychoanalytic Psychodynamic

Jung, Adler, Horney, Erikson,

Rorschach-inkblot

Freud (sex, aggression) dream analysis

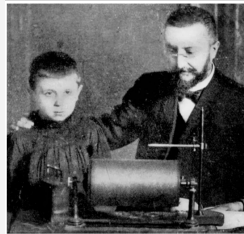
Freud and Jung - free association

Thematic Apperception Test: pictures you narrate

Behavior motivated by unconscious needs

People are basically bad

Alfred Binet



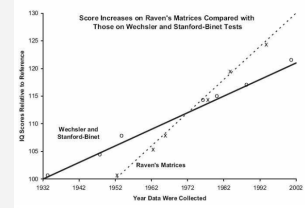
First to make intelligence test which determined test takers "mental" age. This has changed into the IQ test we are familiar with today.

A Method of Measuring the Development of Young Children

Early 1900s

mental age divided by chronological age X 100
= score

Flynn Effect



nurture refers to the effects of the environment on development

"secular rise in IQ scores"

substantial and long-sustained increase in both fluid and crystallized intelligence test scores measured in many parts of the world from roughly 1930 to the present day.

New test subjects take older tests, almost every case average scores are significantly above 100. Test score increases continuous & approx. linear from earliest years of testing to present

Carol Gilligan

attachment

Mother - imprint (Konrad Lorenz)

(Harry Harlow - experiments with monkeys and attachment to mothers)

Boys = justice

Girls = caring

Carol Gilligan (cont)

moral development based on relationship with mothers

Altered States

Video: <http://youtu.be/9PW1fwKjo-Y>

youtube:9PW1fwKjo-Y

Hypnosis, Hallucinations, Psychoactive drugs (effect brain) (pain)

Dissociation - detach from surroundings while still conscious (split consciousness)

Depressants - alcohol, opiate, barb. (morphine, heroine)

- too much opiate ingestion and body stop making natural opiates (endorphins) = withdrawal

Stimulants - caffeine, nicotine, amphetamines (meth, ecstasy, cocaine)

Hallucinogens - plant, fungal, synthetic (LSD, psychedelics)

Pregnancy - First Trimester



Zygote = 1 cell, sperm & egg

Embryo = attaches to uterine wall

Fetus = movement occurs

Teratogen = substance that causes birth defects

reflexes = suck, swallow, touch

Infant Reflexes

Video: <http://youtu.be/0V4x0iQODTk>

Babinski, Moro, Palmar Reflexes

youtube:0V4x0iQODTk

Moro Reflex

Video: http://youtu.be/s_IAFst43TE

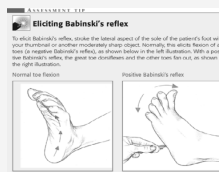
Normal reflex in newborns - 3-4 months.

youtube:s_IAFst43TE

Absence of reflex may suggest injury to bones or spinal cord.

AKA: Startle response; Startle reflex; Embrace reflex

Babinski Reflex



Normal in children up to 2 years old, disappears as the child gets older (maybe as early as 12 months)

Present in a child older than 2 years/adult, often a sign of a brain or nervous system disorder -

- Amyotrophic lateral sclerosis (Lou Gehrig disease)
- Brain tumor or injury
- Meningitis
- Multiple sclerosis
- Spinal cord injury, defect, or tumor
- Stroke

MedlinePlus

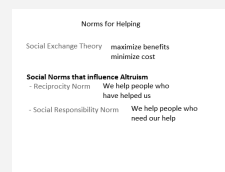
Palmar Reflex



flexion of the fingers following tickling of the palm in infants.

Reappearance may be attributed to certain neurological conditions (dementia, lesions, stroke)

Helping Behaviors



Social Exchange Theory human relationships are formed by the use of a subjective cost-benefit analysis and the comparison of alternatives

Social Responsibility norm obligation to act for the benefit of society at large

Bystander effect in a crowd, no one helps
<https://www.youtube.com/watch?v=cgE5q5rDlaA>

Reciprocity norm

Video: <http://youtu.be/ofxxvc1KPa8>

We feel obligated to help those who have helped us.

The kin-selection hypothesis is one explanation.

youtube:ofxxvc1KPa8

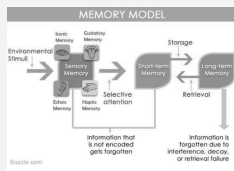
Frustration Agression Hypothesis

Video: <http://youtu.be/oe8PJ8rVV0M>

Frustration produces a readiness for aggression if triggered

youtube:oe8PJ8rVV0M

Sensory Memory



implicit (procedural) = being aware of how to do something without consciously know how

explicit (declarative) = being aware of what you know

iconic = brief photographic memory of an image

echoic = brief memory of an auditory stimulus

flashbulb = vivid memories of emotionally charged events

working = short-term memory

RESOURCES

Youtube playlist with even more Psychology videos.

Motivation

Arousal Theory A theory of motivation suggesting that people are motivated to maintain an optimal level of alertness and physical and mental activation.

Instinct Theory all organisms are born with innate biological tendencies to help them survive. All behaviors are driven by instincts (goal-directed and innate patterns of behavior that are not the result of learning or experience). (babies root)

Drive Reduction Theory physiological need creates an aroused tension state (drive) motivating fulfillment of the need -- homeostasis

Theory X type X individuals are inherently lazy and unhappy with their jobs. Therefore, an authoritarian management style is required to ensure fulfillment of the individuals' objectives.

Theory Y managers assume employees can be ambitious, self-motivated and exercise self-control. Employees enjoy their mental and physical work duties and for them, work is as natural as play