

# AP Psychology Exam Review

## ***Breakdown of Question Categories:***

2-4%	history – (prologue)
6-8%	methods and approaches – (chapter 1)
8-10%	biological bases of behavior – (chapter 2, 3, 14)
7-9%	sensation and perception – (chapter 5, 6)
2-4%	states of consciousness – (chapter 7)
7-9%	learning – (chapter 8)
8-10%	cognition – (chapter 9, 10)
7-9%	motivation and emotion – (chapter 12, 13)
7-9%	developmental psychology – (chapter 4)
6-8%	personality – (chapter 15)
5-7%	testing and individual differences – (chapter 11)
7-9%	abnormal psychology – (chapter 16)
5-7%	treatment of psychological disorders – (chapter 17)
7-9%	social psychology – (chapter 18)

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## **Famous People to Know**

**Frances Galton:** maintained that personality and ability depend almost entirely on genetic inheritance (human traits are inherited)

**Charles Darwin:** theory of evolution, survival of the fittest-origin of the species

**William Wundt:** introspection-psychology became the scientific study of conscious experience (rather than science); father of modern or scientific psychology; structuralism was the approach and introspection was the methodology

**John Watson:** founder of behaviorism; generalization; applied classical conditioning skills to advertising; most famous for Little Albert experiment, where he first trained Albert to be afraid of rats and then to generalize his fear to all small, white animals

**Alfred Adler:** Neo-Freudian; believed that childhood social, not sexual, tensions are crucial for personality formation; believed that people are primarily searching for self-esteem and achieving the ideal self

**Carl Jung:** disciple of Freud who extended his theories; believed in a collective unconscious as well as a personal unconscious that is aware of ancient archetypes which we inherit from our ancestors and we see in myths (young warrior, wise man of the village, loving mother, etc.); coined the terms introversion and extroversion

**Gordon Allport:** three levels of traits-- 1. cardinal trait- dominant trait that characterizes your life, 2. central trait- common to all people, 3. secondary trait- surfaces in some situations and not in others

**Albert Ellis:** father of Rational Emotive Therapy, which focuses on altering client's patterns of irrational thinking to reduce maladaptive behavior and emotion (like, "if I fail the AP exam my life will come to an end")

**Albert Maslow:** humanist psychologist who said we have a series of needs which must be met; you can't achieve the top level, self-actualization, unless the previous levels have been achieved; from bottom to top the levels are physiological needs, safety, belonging, self-esteem, self-actualization; lower needs dominate and individual's motivation as long as they are unsatisfied

**Carl Rogers:** humanistic psychologist who believed in unconditional positive regard; people will naturally strive for self-actualization and high self-esteem, unless society taints them; reflected back clients thoughts so that they developed a self-awareness or their feelings; client-centered therapy

**B.F. Skinner:** operant conditioning-- techniques to manipulate the consequences of an organism's behavior in order to observe the effects of subsequent behavior; Skinner box; believed psychology was not scientific enough; wanted it to be believed everyone is born *tabula rasa* (blank slate); NOT concerned with unconscious or cause, only behavior

**Ivan Pavlov:** father of classical conditioning-- an unconditional stimulus naturally elicits a reflexive behavior called an unconditional response, but with repeated pairings with a neutral stimulus, the neutral stimulus will elicit the response

**Noam Chomsky:** believed there are an infinite number of sentences in a language and that humans have an inborn native ability to

develop language; words and concepts are learned but the brain is hardwired for grammar and language

**Jean Piaget:** four-state theory of cognitive development-- sensorimotor, preoperational, concrete operational, formal operational; two basic processes (assimilation and accommodation) work in tandem to achieve cognitive growth

**Erik Erikson:** people evolve through 8 states over the life span; each state is marked by psychological crisis that involves confronting "who am I"

**Lawrence Kohlberg:** his theory states that there are 3 levels of moral reasoning (pre-conventional, conventional, post-conventional) and each level can be divided into 2 stages

**Carol Gilligan:** maintained the Kohlberg's work was developed only observing boys and overlooked potential differences between the habitual moral judgment of men and women

**Hans Eysenck:** personality is determined to a large extent by genes; used the terms extroversion and introversion

**S. Schacter:** believed that to experience emotions one must be physically aroused and must then label the arousal

**Mary Cover Jones:** systemic desensitization; maintained that fear could be unlearned; Little Peter experiment

**Benjamin Whorf:** his hypothesis is that language determines the way we think

**Robert Sternberg:** triarchic theory of intelligence- [1] academic problem-solving intelligence [2] practical intelligence [3] creative intelligence

**Howard Gardner:** theory of multiple intelligences

**Albert Bandura:** observational learning- allows you to profit immediately from the mistakes and successes of others; his experiment had adult models punching BoBo dolls and then observed children whom watched begin to exhibit many of the same behaviors; social learning theory

**E.L. Thorndike:** law of effect-the principle that behavior followed by favorable consequences becomes more likely and vice versa

**Alfred Binet:** general I.Q. tests

**Lewis Terman:** revised Binet's I.Q. test and established norms for American children

**David Weschler:** established an intelligence test especially for adults (Weschler Intelligence Test for Adults)

**Charles Spearman:** found that specific mental talents were highly correlated; concluded that all cognitive abilities showed a common core which he labeled "g" for general ability

**H. Rorschach:** developed one of the first projective tests, the Inkblot Test; subject reads the inkblots and projects to the observer aspects of their personality

**Philip Zimbardo:** conducted the famous Stanford Prison Experiment; studied the power of social roles to influence peoples behavior; proved people's behavior depends to a large extent on the roles they are asked to play; experiment had to be stopped because it got out of control

**David Rosenhan:** conducted a hospital experiment to test the diagnosis that hospitals make on patients; wanted to see the impact of behavior on being a patient; proved that once you are diagnosed with a disorder, your care would not be very good in a mental hospital setting

**S. Asch:** study of conformity; experiment had a subject unaware of his situation to test if he would conform if all the members of a group gave an obviously incorrect answer

**Stanley Milgram:** conducted a study on obedience when he had a subject shock a patient to the extent that they would be seriously injuring the patient

**Harry Harlow:** studied theory of attachment in infant Rhesus monkeys; also experimented on the effects of social isolation in young monkeys and observed that they become severely emotionally disturbed and never recover fully

**William Sheldon:** theory that linked personality to physique on the grounds that both are governed by genetic endowment; endomorphic (large), mesomorphic (average), ectomorphic (skinny)

**Sigmund Freud:** psychoanalytical theory that focuses on the unconscious; id, ego, superego; believed innate drives for sex and aggression are the primary motives for our behavior and personalities

**Karen Horney:** criticized Freud; said that personality is continually molded by current fears and impulses rather than being determined solely by childhood experiences; saw humans as craving love and social interaction to drive their needs

**Martin Seligman:** learned helplessness is the giving up reaction that occurs from the experience that whatever you do you cannot

change your situation

**H. Ebbinghaus:** first to conduct scientific studies on memory and forgetting; learning curves;

**Hubel/Wiesel:** did a study of the activities of neurons in the visual cortex

**Walter B. Cannon:** believed that gastric activity in an empty stomach was the sole reason for hunger; did experiment by inserting balloon in subjects stomach

**Ernst Weber:** pioneered the first study on JND (just noticeable difference), which become Weber's Law; the JND between stimuli is a constant fraction of the intensity of the standard stimulus

**Elizabeth Kubler-Ross:** theory proposes that the terminally ill pass through a sequence of 5 stages- [1]denial, [2]anger/resentment, [3]bargaining, [4]depression, [5]acceptance

**Robert Zajonc:** mere exposure effect; it is possible to have preferences without inferences and to feel without knowing why

**Henry Murray:** stated that the need to achieve varied in strength in different people and influenced their tendency to approach success and evaluate their own performances; devised the TAT (Thematic Appreciation Test) with Christina D. Morgan

**David McClelland:** devised a way to measure H. Murray's theory-"the need to achieve that varied in strength in different people and influenced their tendency to approach success and evaluate their own performances"; credited with developing the scoring system for the TAT's use in assessing achievement motivation, not for the TAT itself

**Paul Ekman:** theory that facial expressions are universal

**James Marcia:** studied adolescent stage of Erikson; divided adolescent into four groups- foreclosed(having parents identity), achieved (your own identity), diffused (not even searching, living day-to-day), moratorium (actively searching for identity)

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### Famous Theories to Know

<i>Social-Learning Theory</i>	we learn social behavior by observing and imitating and by being rewarded or punished
<i>Gender-Schema Theory</i>	children learn from their cultures a concept of what it means to be male or female and that they adjust their behavior accordingly
<i>Signal Detection Theory</i>	predicts how and when we detect the presences of a faint stimulus amid background stimulation
<i>Young-Helmholtz Trichromatic Theory</i>	the retina contains three different color receptors--one most sensitive to red, one to green, one to blue--which when stimulated in a combination, can produce the perception of any color
<i>Opponent-Process Theory</i>	opposing retinal processes enable color vision (red-green, yellow-blue, white-black)
<i>Frequency Theory</i>	the rate of nerve impulses traveling up the auditory nerve matches the frequency of a tone, thus enabling us to sense its pitch
<i>Place Theory</i>	links the pitch we hear with the place where the cochlea's membrane is stimulated
<i>Gate-Control Theory</i>	the spinal cord contains a neurological "gate" that blocks pain signals or allows them to pass on to the brain
<i>Drive-Reduction Theory</i>	the idea that psychological need creates an aroused tension state that motivates an organism to satisfy the needs
<i>James-Lange Theory</i>	our experience of emotion is our awareness of our physiological responses to emotion-arousing stimuli
<i>Cannon-Bard Theory</i>	an emotion-arousing stimulus simultaneously triggers physiological responses and the subjective experience of emotion
<i>Two-Factor Theory</i>	Schachter's theory that to experience emotion one must be physically aroused and cognitively label the arousal

<i>Attribution Theory</i>	we tend to give a casual explanation for someone's behavior, often by creating either the situation or the person's disposition
<i>Cognitive-Dissonance Theory</i>	we act to reduce the discomfort we feel when two of our thoughts are inconsistent
<i>Scapegoat Theory</i>	prejudice offers an outlet for anger by providing someone to blame
<i>Social Exchange Theory</i>	our social behavior is an exchange process, the aim of which is to maximize benefits and minimize costs

## Experimental Terms

**hypothesis** - your prediction of how the experiment will come out, based upon a theory

**population** - all cases in a study; group from which samples are drawn. If you were studying teen driving for instance, teens would be your population; the specific teens you studied would be your sample. Ideally, all the teens would have an equal chance to be subjects to have a perfect random sample, but if the group you choose from is **representative** of the population, (meaning same proportion of gender, ethnicity, age, etc) and all of those have an equal chance of being chosen, then you have a random sample.

**random sample(sometimes just called sample)** - the group you are doing the actual experiment on. They should all have had the same chance of being selected from the population. See above.

**random assignment** - the way in which you assign members of the random sample to the control or experimental group. Again, each member of the random sample should have an equal chance of being selected to each group. Try to keep all things equal. Wait until everyone is there and randomly select them.

**subject** - the person you are doing an experiment on; a member of the random sample who has been randomly assigned.

**operational definition** - a statement of the procedures used to define research variables. Spell out what you are comparing and how you are going to measure and compare the dependent variable.

**independent variable** - the experimental fact that is going to be manipulated or changed. You will compare the results of this fact to a baseline or control group on which the variable was not done (called a **between subjects design**), or you may compare the group in a before-and-after scenario, in which their original state or scores act as your baseline or control group (within **subject design**). For instance, if you wanted to test the effects of watching the Simpsons on mood, your population might be Americans. You would get a **random sample** for a representative population of Americans chosen from phone books. Randomly assign those people to two groups, one who watches the Simpsons(**experimental group**) and one that doesn't (**control group**). The independent variable would be watching the Simpsons. Give each group a mood test at a certain time before the independent variable is introduced. The results should be the same because they are a random sample randomly assigned from the same population. Have the subject watch the Simpsons, and the control group not watch the Simpsons. Re-administer the mood test and compare the resulting mood change (**dependent variable**). Or, in this case, a within subjects design would be feasible and you could administer the mood test to the random sample over a period of days to find out each members typical mood at 7:30 p.m. on a "typical day". Then, allow them to watch the Simpsons every day for a week and then measure their mood afterward and compare the results. The sample would then serve as its own control group.

**experimental group** - the group being experimented on or acted upon by the independent variable. See above.

**control group** - group compared to the experimental group to see if any change has occurred because of the independent variable.

**dependent variable** - behavior or mental process that is being tested; the behavior or mental process that changes because of the introduction of the independent variable. The results of the experiment are compared to the behavior or mental process before and after, or against the control group of the dependent variable.

**results** - the outcome in quantitative or measurable behavioral terms comparing the dependent variable before and after

**discussion** - your assessment of the experiment based on the results. Did it prove our hypothesis? Did you discover control problems? What further study might be needed?

**control of possible confounding variables** - steps you take to make sure your random samples are as identical as possible and that the environment in which they are tested are as similar as possible.

**confounding variables** - uncontrolled variables that affect the control group and experimental group affecting your results. It could be things like time of day being different, using a male voice in one group and a female in another, and other distracting

circumstances

**double blind as a control for experimenter bias** - if you're asked to control for experimenter bias, you can't go wrong by using a **double blind** technique, wherein neither the experimenter nor the subject know who is in the control group or experimental group so that they won't sway the results. The experimenter may know the intent of the study. To be even purer, you could use a tester who doesn't even know what he/she is testing for.

### Basic Stats Review

**mean** - the sum of a list of numbers, divided by the total number of numbers in the list

**median** - "middle value" of a list; the smallest number such that at least half the numbers in the list are no greater than it. If the list has an odd number of entries, the median is the middle entry in the list after sorting the list into increasing order. If the list has an even number of entries, the median is equal to the sum of the two middle (after sorting) numbers divided by two.

**mode** - for lists, the mode is the most common (frequent) value. A list can have more than one mode. For histograms, a mode is a relative maximum ("bump").

**standard deviation** - tells how spread out numbers are from the average; calculated by taking the square root of the arithmetic average of the squares of the deviations from the mean in a frequency distribution.

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### Confusing Pairs

**independent variable** (what is tested or manipulated) vs. **dependent variable** (what is measured or changes)

**experimental group** (group that is tested) vs. **control group** (group compared to the experimental)

**left brain** (language and logic) vs. **right brain** (creative and spatial)

**corpus callosum** (divides the brain) vs. **cerebral cortex** (covers the brain)

**sympathetic nervous system** ("flight-or-fight") vs. **parasympathetic** (calming)

**neurotransmitters** (in the nervous system) vs. **hormones** (in the endocrine system)

**lateral hypothalamus** (stimulates hunger) vs. **ventromedial hypothalamus** (suppresses hunger)

**Broca's area** (makes words) vs. **Wernicke's area** (comprehends words)

**identical twins** (same fertilized egg) vs. **fraternal twins** (two separate eggs)

**afferent neurons** (sensory, body to the brain) vs. **efferent neurons** (motor, brain to the body)

**assimilation** (all four-legged animals are "doggies") vs. **accommodation** ("doggies" are different than "kitties")

**concrete operations** (logical thinking) vs. **formal operations** (philosophical thinking)

**sensation** (bottom-up processing) vs. **perception** (top-down processing)

**rods** (night vision) vs. **cones** (color vision)

**classical conditioning** (involuntary) vs. **operant conditioning** (voluntary)

**primacy effect** (first items remembered) vs. **recency effect** (last items remembered)

**proactive interference** (loss of the new info) vs. **retroactive interference** (loss of the old info)

**implicit memory** (nondeclarative; skills) vs. **explicit memory** (declarative; facts)

**recall memory** (no cues) vs. **recognition memory** (some hints)

**algorithms** (step-by-step) vs. **heuristics** (rule-of-thumb)

**representative heuristics** (stereotypes) vs. **availability heuristics** (based on available info)

**phonemes** (basic sound units) vs. **morphemes** (basic units of meaning)

**fluid intelligence** (“brain power”) vs. **crystallized intelligence** (acquired knowledge)

**validity** (test measures what it should) vs. **reliability** (same scores on a retest)

**achievement test** (what you’ve learned) vs. **aptitude test** (what you can do)

**intrinsic motivation** (for personal satisfaction) vs. **extrinsic motivation** (for rewards or to avoid punishment)

**theory Y** (democratic) vs. **theory X** (rewards or punishment)

**internal locus** (controlling the environment) vs. **external locus** (the environment controls you)

**lithium** (treats bi-polar) vs. **librium** (treats anxiety)

**Type A** (high stress) vs. **Type B** (low stress)

### Brain - Mnemonics!

**corpus callosum:** a corpse lying across the brain connecting the two sides

**cerebral cortex:** a cereal court where the judge is deciding which is the best cereal--the decision making upper brain

**occipital lobe:** an octopus with a million eyes

**temporal lobe:** tempera paint painted all over a person’s ear, for auditory cortex or tempo for hearing (not to be confused with the cerebellum that keeps tempo)

**Broca’s area:** broca sounds like boca, which is Spanish for mouth

**Wernicke’s area:** that’s the other language one; comprehension

**frontal lobe:** student leader standing in front of class planning prom--planning part and association areas

**motor strip:** the motor is in the front of the car, so it’s in the frontal lobe, no parietal

**parietal lobe:** a loving parent tenderly touching the child’s forehead; sensory strip is there

**hypothalamus:** a junkie shooting up with hypodermic needle; pleasure center...

**hippocampus:** “elephants never forget” but forget now think Hippos never forget--- short term memory

**parasympathetic:** parachute, they both slow you down

### Random Important Stuff

**adaptation-level phenomenon:** tendency to form judgments based relatively to our prior experiences

**belief perseverance:** clinging to one’s belief even when they have been discredited

**belief bias:** when one’s beliefs force them to distort logic in order to support that belief

**confirmation bias:** tendency to search for information that supports our beliefs

**deindividuation:** loss of self-awareness and self-restraint when in a group

**false Consensus effect:** the tendency to believe that others agree with us more than they do

**feel good-do good phenomenon:** tendency to do good deeds when you feel good

**frustration-aggression principle:** frustration (being impeded from a goal) leads to aggressive behavior

**group polarization:** tendency for individual group members of two basically opposed views to become more extreme in their opposition to the other view

**groupthink:** when desire for harmony in a group overrides logical search for alternative solutions

**hindsight bias:** tendency to believe, after a solution has been found, that you know it all along

**illusory correlation:** the perception of a relationship where none exists because we only notice instances that fit our existing

schemas or stereotypes (confirmation bias)

**in-group bias:** tendency to favor ones own group and to view the out-group negatively

**just-world phenomenon:** tendency to believe the world is just, and therefore people get what they deserve and deserve what they get

**mere exposure effect:** phenomenon that repeated exposure to stimuli (or a person) makes you like it more

**misinformation effect:** incorporating false information into memories and believing theya re accurate

**overconfidence:** tendency to believe our opinions are correct more often than they are

**overjustification effect:** the effect of offering a reward for something we already like to do, which can lead to someone not doing the behavior unless there is a reward.

**relative deprivation:** tendency to believe we are worse off based on those we compare ourselves to, usually those around our relative level

**representativeness and availability heuristics:** tendency to use short-cut decision making technique based on the most dramatic example and prototypes of stimuli we are deciding about

**self-serving bias:** a readiness to believe good things about ourselves. We attribute dispositional rather than situational factors—the reverse is felt for others and is called the **Fundamental Attribution Error**

**serial position effect:** tendency to remember the first and last item in a list

**social facilitation:** improved performance on tasks in front of groups, it applies to tasks we know well or do well, not to newly learned or difficult tasks

**social loafing:** tendency for individuals engaged in a group task to work less hard than if they were being held individually accountable or working alone

**social trap:** a situation when those engaged in a conflicting pursuit of self-interest become caught in mutually self-destructive behavior.

Neurotransmitter	Function	Associated Disorders
Acetylcholine (Ach)	excitatory neurotransmitter related to movement of all muscles, as well as arousal, attention, anger, aggression, sexuality, and thirst	memory loss Alzheimer's Disease
Dopamine (DA)	inhibitory neurotransmitter that controls posture and movement	Parkinson's Disease Schizophrenia
Gama-aminobutyric Acid (GABA)	inhibits central nervous system and regulates anxiety	anxiety disorders Hunington's Disease
Glutamate (Glu)	major excitatory neurons in central nervous system; important for learning and memory	memory loss Alzheimer's Disease
Norepinephrine	important for psychological arousal, mood changes, sleep, and learning	Bipolar Mood Disorder
Serotonin (5-HT)	regulates sleep, mood, appetite, and pain	depression
Endorphins	pain control	involved in addictions

Major Glands of the Endocrine System	Hormones Secreted	Description
Adrenal Cortex	steroids	Regulates salt and carbohydrates metabolism
Adrenal Medulla	Adrenaline Noradrenaline	Prepares body for action
Gonads	Estrogen Progesterone Testosterone	Affects reproductive organs, sexual behavior, and physical development
Hypothalamus	Neurosecretions	Controls the pituitary (part brain/part gland; produces neurotransmitters)
Pancreas	Insulin Glucagen	Regulates sugar metabolism
Pituitary Gland	Thyrotropin Oxytocin Coritcotrophin	Master gland; controls growth and other glands
Thyroid Gland	Thyroxin Calcitonin	Regulates metabolism

### Developmental Psychology

Developmental psychology focuses on the changes in people over the course of their lives. Much of those changes are biological and are generally referred to as **maturation**. The four superstars in developmental psychology are Piaget, Erikson, Freud, and Kohlberg.

Piaget	<b><i>Cognitive Development Stages</i></b>
	<p><b><i>Sensorimotor (0-2)</i></b> : these are little babies who think in terms of things they can touch and feel. It is during this stage that object permanence—the understanding that things that leave the visual field still exist (9 months)—develops along with stranger anxiety.</p> <p><b><i>Preoperational (2-6)</i></b> : kids can't think logically about abstractions, so fantasy is reality, imaginary friend and beliefs like Santa and the Easter bunny are real.</p> <p><b><i>Concrete Operational (6-12)</i></b> : kids do think logically about concrete things, so how could Santa go to all those houses in one night. They also learn that relationships go two ways and reversibility (“I have a sister and so does my sister(me)”). They learn conservation—liquid in a tall container is not necessarily more than liquid in a short, wide container).</p> <p><b><i>Formal Operational (after 12)</i></b>: learn to think and reason abstractly about things like justice and to forecast the future based on the past. Mature moral reasoning also develops.</p> <p>Criticisms: Piaget's tools for assessing weren't good enough and kids could do some things earlier, but just couldn't demonstrate them. Also, some say that these stages are not that cut and dry and sometimes children can do some things in some areas but not in others.</p>

Erikson	<p style="text-align: center;"><b>Psychosocial Development Stages</b></p> <p><b>Trust vs. Mistrust</b> – infants; if needs are dependably met, infants develop a sense of basic trust</p> <p><b>Autonomy vs. Shame</b> – toilet training; toddlers learn to exercise will and do things for themselves, or they doubt their abilities</p> <p><b>Initiative vs. Guilt</b> – preschoolers learn to initiate tasks and carry out plans, or they feel guilty about efforts to be independent</p> <p><b>Industry vs. Inferiority</b> – children learn the pleasure of applying themselves to tasks, or they feel inferior</p> <p><b>Identity vs. Confusion</b> – teenagers work at refining a sense of self by testing roles and then integrating them to form a single identity, or they become confused about who they are</p> <p><b>Intimacy vs. Isolation</b> – young adults struggle to form close relationships and to gain the capacity for intimate love, or they feel socially isolated</p> <p><b>Generativity vs. Stagnation</b> – the middle-aged discover a sense of contributing to the world, usually through a family and work, or they may feel a lack of purpose</p> <p><b>Integrity vs. Despair</b> – when reflecting on his or her life, the older adult may feel a sense of satisfaction or failure</p>
Freud	<p style="text-align: center;"><b>Psychosexual Stages</b></p> <p><b>Oral (0-18 months)</b> : pleasure centers on the mouth—sucking, biting, and chewing</p> <p><b>Anal (18-36 months)</b> : pleasure focuses on bowel and bladder elimination; coping with demands for control</p> <p><b>Phallic (3-6 years)</b> : pleasure zone is the genitals; coping with incestuous sexual feelings</p> <p><b>Latency (6-puberty)</b> : dormant sexual feelings</p> <p><b>Genital (puberty on)</b> : maturation of sexual interests</p>
Kohlberg	<p style="text-align: center;"><b>Moral Development Stages</b></p> <p><b>Preconventional</b> : right and wrong is determined by whether or not you will be punished</p> <p><b>Conventional</b> : you decide appropriate behavior based on what society says; “rules are rules”</p> <p><b>Post-conventional</b> : requires formal operational thinking; morality is based on universal principles applied to individual circumstances</p>

### Psychoanalytical Thought

Personality is based on the evolutionary needs for sex and aggression. Freud was a reader of Darwin. Dysfunction occurring in adulthood in the form of anxiety or neurosis was caused by problems that developed during **psychosexual stages** (according to Freud) or in **childhood** (according to Neo-Freudians). The mind consists of the **id** (sex and aggression; unconscious; pleasure principle) and the **superego** (moral conscience; unconscious). *Review the chart on developmental psychology for Freud’s stages of development.*

Therapies	<p><b>Psychoanalysis:</b> talk therapy designed to uncover the repressed feelings creating anxiety/disorders and deal with them in the conscious mind; uses <b>free association</b>, possibly <b>hypnosis</b> (dangerous), and <b>dream interpretation</b> to uncover the source of the problems</p> <p>Use of <b>introspection</b>--looking inside yourself.</p>
People	<p>Freud - founder</p> <p>Jung - <b>collective unconscious</b>, ancient/universal understand of roles called <b>archetypes</b>; people have self and personas (masks we wear to emulate the archetypes); significant difference between these two parts of ourselves create mental disorders; dream interpretation</p> <p>Adler - constant search of <b>self-esteem</b> and superiority; concept of inferiority complex</p> <p>Horney - search for love and interpersonal relationships are our driving force; differences with men/women; emphasized conscious thought</p> <p>Erikson - 8 stages of development; see development chart</p>
Their Beliefs	<p>Defense mechanisms= <b>rationalization, denial, repression</b> (the father of them all), <b>projection, displacement, reaction formation</b> (act the opposite of what you feel), <b>sublimation</b> (directing it to good uses), <b>intellectualization</b></p> <p><b>Unconscious thoughts</b> drive behavior fueled on repressed feelings from early days.</p>

	(id, ego, and superego)
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### Cognition

<b>Basics</b>	<p><b>Cognitive psychology</b> concerns itself with <b>thinking, memory, and internal thought processes</b>. If you see any of those words, the answer is “cognitive”. The <b>information-processing</b> metaphor for cognition studies how the brain <b>encodes, stores, and retrieves</b> information. Basically, the outside stimulus goes into an extremely short-term (second or two, photographic) <b>sensory memory</b> that is either <b>iconic</b> (visual) or <b>acoustic</b> (sound). If important enough it goes to short term memory, which holds 7 items (plus or minus 2). The <b>short-term memory</b> is stored in the <b>hippocampus</b> in the limbic system. If thought important enough, it is transferred to <b>long-term memory</b>, which is not localized but is dispersed throughout the brain, and different bits are brought together in <b>associative areas</b> of the frontal lobe for use. If you bring something forward from memory, it goes into the working memory, where it is retrieved. Memory loss can be info. never encoded, lost from short tem memory, encoded improperly, or retrieved incorrectly, as with <b>misinformation effect</b>.</p>
<b>Organization</b>	<p>Cognitively, the brain is organized in <b>schemas, or interconnected webs, sets, frameworks, or hierarchies</b> we use to organize information, which may include sounds, sights, thoughts, smells, or memories. When we retrieve information, we activate various schemas. We often make rule of thumb decisions called <b>heuristics</b>, either the most vivid example, (as in <b>available heuristics</b>), or use of a <b>prototype</b> which sits as a <b>superordinate</b> at the top of a category hierarchy. This is like an image of a football player being a big, dumb jock, while most don't fit that category. That's what we look for in <b>representative heuristics</b>. We activate various schemas with <b>retrieval cues</b> (events or examples that trigger memory) sometimes giving us <b>déjà vu</b>, or even remembering false memories. It is easier to remember things where you learned it (<b>state-dependent</b>) or in the mood you were in (<b>mood-congruent</b>).</p>
<b>Memory</b>	<p>We sometimes forget things we knew because of new things we learn, (<b>retroactive interference</b>). Sometimes things we already knew like driving a clutch car, hurt learning new things, like driving an automatic car. This is called <b>proactive interference</b>. Memories and schemas as built into neural networks that interconnect. The more often that the network fires, the easier it is to fire the next time. This is why rehearsal and relearning help you remember, so things learned over time also reinforce those neural pathways allowing you to remember information for longer. Like the Ebbinghaus curve, the first time around you have a precipitous fall and then after <b>relearning</b>, the fall is less.</p>
<b>Cognitive Therapy</b>	<p>The goal of <b>cognitive therapies</b> are to get you to change negative <b>internal sentences</b>. Depressed people's internal thoughts turn on them and everything is framed in a way that seems negative. Even cynicism and sarcasm can become an internal sentence habit. The most famous of these therapies is Albert Ellis's <b>Rational-Emotional therapy</b>, in which the therapist aggressively challenges irrational thought processes and works with patients to change the habit of negative internal sentences. This therapy has the best success in the long-term for depression for the non-drug therapies. People who frame their sentences to be optimistic report higher levels of happiness. Mood can be dictated by what you think and you can make changes in the way you think through practice. <b>Role-playing</b> becomes reality.</p>

### Behaviorism/Learning

<b>Basics</b>	<p>Learning occurs through associations basically in three ways:</p> <ul style="list-style-type: none"> <li>[1] <b>classical-</b> neutral stimulus is associated with a natural stimulus (UCS) that creates a natural response (UCR). The neutral becomes the conditioned stimulus (CS) creating the same response (CR).</li> <li>[2] <b>operant-</b> an intentional behavior (response) is reinforced positively, negatively, or by punishment encouraging a behavior (positive or negative) or discouraging a behavior.</li> <li>[3] <b>social/observation-</b> through observation and imitation. That's why hit children learn to hit rather than what the parent is operantly trying to accomplish.</li> </ul> <p><b>Reciprocal determinism</b> (Bandura): our traits move us to choose certain environments, which then reinforce us so we feel good and repeat the behaviors, or the opposite.  *important--not interested in causes, but in changing behaviors  Behaviorists criticized psychoanalytical as being not testable and not observable.</p>
<b>Terms/Concepts</b>	<p><b>primary reinforcements:</b> food, love---things the organism physically needs  <b>secondary reinforcements:</b> money---things that represent primary reinforcers  <b>continuous reinforcement:</b> every time; teaches quickest, extinguishes quickest  <b>partial:</b> teaches slower, extinguishes slower  <b>schedules of reinforcement:</b></p> <ul style="list-style-type: none"> <li>[1]<b>variable ratio-</b> reinforcement given after varying # of times a behavior is done; slot machines</li> <li>[2]<b>fixed ratio-</b> every specific amount of times a behavior is done; one dollar for every three homeworks you turn in</li> </ul>

	<p>[3]<b>variable interval</b>- rewarded at a time increment that varies; fishing</p> <p>[4]<b>fixed interval</b>- time passes and then you get paid; a job</p> <p><b>shaping</b>: slowly reinforcing subject as they approximate a desired behavior</p> <p><b>immediate vs. delayed</b>: in most instances, reinforcement must be immediate to be effective. For example, hangovers don't stop people from drinking.</p>
People	<p><b>Pavlov</b>-- classical conditioning and dog salivation</p> <p><b>Watson</b>-- little Albert experiment, making him afraid of furry white things; conditioned phobias; applied CC to advertising</p> <p><b>B.F. Skinner</b>-- the father of operant conditioning; trained pigeons to do unnatural behaviors in Skinner boxes; took Watson's "give me a person, I'll make him what you want" maxim to the extreme; wanted psychology to be more scientific, observable, and testable</p> <p><b>Albert Bandura</b>-- the father of social learning theory; observation- imitation and reinforcement</p> <p><b>Mary Cover Jones</b>-- desensitization and the removal of phobias</p>
Therapies	<p><b>Systematic desensitization</b>: slowly introducing the object of fear to the patient until their symptoms subside and then moving them closer; teaching clients to relax in each successive level of the <b>anxiety hierarchy=progressive relaxation</b></p> <p><b>Aversion (remember this means "get away from") Conditioning</b>: applying a punishment to an undesirable behavior; like making alcoholic drinks that make you violently ill; not effective if the person knows what's going on because they can cognitively blame it on the additive</p> <p><b>Flooding</b>: a type of <b>exposure therapy</b> that subjects a person to massive doses of what they are afraid of</p> <p><b>Token Economies</b>: based on <b>operant conditioning</b> principles; reinforcement tokens given for desired behavior and then later cashed in for privileges</p>

### Humanism

Basics	Therapies	People	Their Beliefs
<p>Humanism is a psychological philosophy that emphasizes the goodness and individuality of humans. That untainted by society people will move toward self-actualization. Humanists believe that people's actions are based on free will, not repressed feelings and desires like psychoanalysts or learned behaviors like behaviorists. Humanists are accepting of a wide range of behavior as natural and good.</p>	<p><b>Client-centered therapy</b>: client and therapist work together in a nondirective way, with the client deciding which way they should go. Therapist acts as a mirror reflecting back but not making decisions for the client, who is after-all, headed toward <b>self-actualization</b>.</p>	<p><b>Maslow</b> <b>Carl Rogers</b></p>	<p><b>Hierarchy of needs</b>- Maslow believed that we work our way up a pyramid of needs, where the most basic needs must be met before we can achieve the next level. Our ultimate goal is <b>self-actualization</b>.</p> <p>Rogers believed in <b>unconditional positive regard</b> as the way to raise healthy children. Nurturing them to achieve high self-esteem and a positive self concept is important. He is the father of client-centered therapy.</p>

### Neurobiology

Basics	<p>The neurobiological approach focuses on the medical and physical aspects of human behavior--- how the brain works, how the <b>autonomic (sympathetic and parasympathetic)</b> and <b>central nervous system</b> interact. Also, it focuses on how the neural system interacts with the <b>endocrine system</b> (the glands). This approach is most popular now with <b>psychiatrists</b> because they are the only ones who are MDs and can prescribe medicine.</p>
The Neuron	<p>The <b>neuron</b> is made up of the cell body, the <b>axon</b>, which sends electrical charges and the <b>dendrites</b>, which receive the chemical messages that the charges are converted to as the <b>axon terminal</b>. The resulting process is called an <b>action potential</b>, which is created when the neuron depolarizes allowing positively charged ions. Some neurons have a coating on the outside which insulates the nerve allowing the charge to move faster (called a <b>myelin sheath</b>). When the charge reaches the axon, it causes a <b>neurotransmitter</b> to be released and binds the dendrite, allowing the charge to flow. The neurotransmitter is then reabsorbed by the axon, breaking the connection.</p>
Cerebral Cortex	<p>This is the upper, complex brain, which is larger in humans than other animals. It is divided into four parts called <b>lobes</b>, which are divided by <b>fissures</b>:</p> <p><b>frontal lobe</b>- responsible for complex <b>associations</b> among other brain parts, planning, and control of the <b>limbic system</b>; <b>motor strip</b> is also located here.</p> <p><b>parietal lobe</b>- holds the <b>sensory strip</b></p> <p><b>occipital lobe</b>- where vision is processed and internal visualizations occur</p> <p><b>temporal lobe</b>- responsible for speech and language in <b>Wernicke's</b> and <b>Broca's area</b>.</p> <p>The brain is divided left to right between <b>hemispheres</b> by the <b>corpus callosum</b>, which allows messages to pass</p>

	between the two sides. The left side is the sadder, verbal, logical, and reasoning side. The right side is the happier, intuitive, spatial, and artistic side.
<b>Lower Brain</b>	<p><b>brain stem</b>- keeps you alive and contains the <b>reticular activating system (RAS)</b>, which regulates arousal level, the <b>medulla</b>, which regulates heart rate and breathing, and the <b>thalamus</b>, which connects the sensory apparatus and the higher brain.</p> <p><b>limbic system</b>- the emotional brain. It contains the <b>hypothalamus</b>, which regulates basic drives (hunger, thirst, sex), the <b>amygdala</b>, which regulates the primitive emotions of anger and fear, and the <b>hippocampus</b>, which is important for <b>short-term memory</b>.</p> <p>FYI- <b>long-term memory</b> is not localized but it stored throughout the cerebral cortex</p>
<b>Drugs</b>	<p><b>Serotonin reuptake inhibitors SSRI</b> are <b>anti-depressants</b> that prevent the reabsorption of <b>serotonin</b> and lift the mood. They include <b>Prozac, Zoloft, and Luvox</b>.</p> <p><b>Thorazine and Clozapine</b> are <b>antipsychotics</b> prescribed for <b>schizophrenia</b>. They work on the <b>dopamine</b> system. Dopamine excess is a possible cause of schizophrenia.</p> <p><b>Lithium</b>, which is a salt and stabilizes mood, works with antidepressants for <b>bipolar</b> patients.</p> <p><b>Valium and Xanax</b> are basically tranquilizers used for anxiety disorders.</p> <p><b>Ritalin</b> is a stimulant used for ADHD to stimulate brain activity.</p> <p><b>L-Dopa</b> is a drug that helps the brain produce dopamine, which is lacking in Parkinson's patients.</p>

### Recommended Internet Sites

<http://www.apppsychology.com>

(flash cards, puzzles, study tips, etc.)

[http://gerardkeegan.co.uk/glossary/gloss\\_a.htm](http://gerardkeegan.co.uk/glossary/gloss_a.htm)

(good psych glossary)

<http://www.psychology.org/links/Resources/>

(links to a variety of different sources)

<http://www.alleydog.com/glossary/psychology-glossary.cfm>

(has some errors!)

<http://www.usu.edu/psycho101/cyberpsych/cyberpsych.html>

(college material with links to a variety of psych topics)

<http://serendip.brynmawr.edu/bb/kinser/structure1.html>

(brain study site, has pictures!)

<http://bcs.worthpublishers.com/myers7e>

(textbook site, do the practice quizzes and read other useful info.)