History of Psychology - 2-4% (FT5 page 333)

1. Psychology originated from philosophy (Socrates, Plato, Aristotle) and physiology (brain and body)

2. **Behavior genetics** - perspective of psychology studied influences of nature (genetics) vs. nurture (environment)
   a. **Remember**: nature means natural and nurture means UR in charge of your development

3. **Behaviorism** - observable (overt) behavior - in order to be studied behavior must be based on observable and identifiable behavior - **John B. Watson** (founder of American behaviorism)
   a. **Remember**: the B. in John B. Watson stands for Father of Behaviorism

4. **Structuralism** - Wilhelm Wundt and Edward Titchener - first school of psychology that believed conscious experiences could be broken down into simplest components like feelings, thoughts/ **introspection** - technique used by structuralists to look inward at the parts of consciousness but proved to be unreliable as subjects reported different answers on different occasions.
   a. **Remember**: Structuralists were interested in the PARTS of the car and they used introspection to look inward at them

5. **Empiricism** - knowledge has to come from experience or direct observation supported by **John Locke** who stated the mind is a blank slate (tabula rasa) that we write our experiences on - supports nurture side of the argument. **Critical thinking** - thinking that includes scientific reasoning or empirical evidence (provided by Wilhelm Wundt who introduced experimental design separating psychology from philosophy in 1879 in Leipzig Germany, and questioning - not assuming or speculating
   a. **Remember**: E for empirical= E for evidence

6. **Mary Whiton Calkins** - first women to finish requirements for PhD. but was denied by Harvard
   a. **Remember**: Mary Why-ton Calkins did I not get my PhD.

7. **Margaret Floy Washburn** - first women to be awarded PhD
   a. **Remember**: Margaret experienced JOY(floy) Washburn because she got her PhD.

8. **Francis Sumner** - first African American to be awarded PhD

9. **William James** - supporter for **Functionalism** - first American school of psychology that applied Darwin’s thoughts in terms of how an organism adapts (natural selection) and functions in its environment. Evolutionary perspective - viewpoint that suggests all organisms will do whatever necessary to survive which include mating and defending their young or offspring.
   a. **Remember** William James and Charles Darwin were interested in how the car functioned
Research Methods of Psychology - 8-10% (FT5 page 47)

1. **Theory** - explanation about behavior or situation summarizing and describing findings resulting from a **hypothesis** - testable prediction - first step in **scientific method**

2. **Descriptive studies** - describe behavior but don’t explain / **case study** - in-depth interview or review of rare phenomenon or person - but can’t be applied to general population (Freud used this method) / **Surveys** - given to large groups for quick results - False consensus effect - believing people taking the survey will automatically agree with the person’s thoughts and opinions who wrote the survey - Social desirability effect - tendency for people to answer in a favorable way to make one look good / **Wording effect** - how you word questions could influence how people answer surveys
   a. Remember: DESCRIPTive studies describe behavior
   b. Remember: CASE means ONE
   c. Remember: you FALSELY think that EVERYONE (consensus) agrees and thinks like you
   d. Remember: everyone wants to look DESIRABLE so their parent will let them out SOCIALLY at night

3. **Longitudinal study** - long-term study over a group of people - very expensive and time consuming / **cross-sectional study** - study that examines and makes comparisons among different groups like age, gender
   a. Remember: LONGitudinal means LONG time study
   b. Remember: To cross examine a defendant means that the opposite or other lawyer asks you questions

4. **Random sample** - everybody has equal chance of being picked from **population** - the group being studied resulting in a **representative sample** - sample that taken from the targeted population
   a. Remember: the sample must REPRESENT the population

5. **Random selection or assignment** - equal chance for all participants (of the representative sample) to be chosen for either **control group** - the group that is held for comparison not given the independent variable or **experimental group** - the group that receives the independent variable
   a. Remember: you randomly ASSIGN people to either the control or experimental group

6. **Correlational studies** - shows relationships and makes predictions between variables or factors - but does not provide cause-and-effect explanations / a number called the **correlational coefficient** if closer to 1.00 (+1.00 or -1.00) means a strong relationship shown on a **scatter plot** / **illusory correlation** - relationship that appears to be there, but is not like people act crazy during a full moon. **Negative correlation** variables move in opposite directions (less you drink more you remember) **Positive correlation** - variables move in same direction (more you study better grades you get)
   a. Remember: CORrelation means “O” there must be a RELEATION
   b. Remember: Illusory is an ILLUSION does not exist like a false relationship
7. **Experiment**- shows cause and effect relationships among variables by manipulating or causing change with a variable called the **independent variable**- the variable of experimenter interest and then showing the amount of change through measurement (the results) of the **dependent variable** *(If students take a vitamin (independent variable) then their retention of material (dependent variable) will go up.)*
   a. **Remember:** Independent variable is what researcher is IN-terested in
   b. **Remember:** Dependent variable DEPENDS on how you MEASURE it

8. **Confounding variable**- variables that influence the dependent variable (outcome or measurement of experiment) by not being considered or controlled by experimenter (students moods before they take a test)
   a. **Remember:** Con-founding variable you did CON-SIDER other variables or factors

9. **Double-blind procedure**- guards against researcher bias and participant bias through the subjects or experimenters not knowing who is in the control or experimental group or what is the purpose of the study/ **Placebo group**- a fake or sugar pill independent variable

10. **Hindsight bias**- “I knew the results all along” but only state after the results given
   a. **Remember:** Hindsight means you HID your opinion until the end

11. **Operational definitions**- precise instructions how each variable will be manipulated or measured in an experiment- helps others to later do same or replicate the experiment
   a. **Remember:** Operational definition- How you DEFINE the OPERATIONS or DIRECTIONS

12. **Overconfidence**- people or researchers who believe they already know the outcome before the experiment and don’t consider any other factors or possibilities.

13. **Research guidelines**- informed consent- participants know that they are part of an experiment/ **debriefing**- participants are told the purpose and the results of study.

**Biological psychology - 8-10% (FT5 page 62)**
1. **Glial cells**- cells that provide nourishment and support **Neurons**- **dendrites**- receive information / **axon hillock**- the part of a neuron that determines if information will be sent down the **axon**- part of a neuron that sends information/ **myelin sheath**- covers the axon and speeds up transmission through its gaps called *(nodes of ranvier)* and if myelin sheath depletes could lead to Multiple Sclerosis/ **Neurotransmitters**- chemical messengers (contained in the **axon terminals**- end point of a neuron) that cross the **synapse**- the gap between neurons
   a. **Remember:** GLIAL CELLS are the teacher aids who help the NEURONS who are the teachers who tell the NEUROTRANSMITTERS or students what to do who then carry messages throughout school
   b. **Remember:** (D)endrites (R)ecieve information like DR.s (doctors) 
   receive patients
2. **Neural communication - Action potential** - An excitatory message received on the dendrites of a neuron causes depolarization - cell becomes positively charged on the inside as sodium ions enter that eventually exceeds the threshold - the minimum amount of stimulation necessary to cause an action potential. An inhibitory message would not cause an action potential.

a. **Remember:** (De)polarization (De)termines action potential because you are excited (excitatory message) you are going down the slide-axon

b. **Remember:** Threshold is like you pushing through the turn style so you can get action and go down the waterslide

3. **Refractory period** - period after a neuron fires an action potential and cannot fire another action potential (also called hyperpolarization) until the neuron returns back to the original resting potential -70 charge/ All-or-none principle (aka all-or-none response) - neuron either fires or does not and when does fire and also in the same intensity every time.

a. **Remember:** refractory period is like waiting for the toilet water to rise back up to its resting level or resting potential

b. **Remember:** All-or-none is like firing a gun it either fires or it does not and the bullet comes out with the same intensity every time

4. **Agonist** - mimics neurotransmitter; opiates (heroin/ motrin) mimics endorphins (is the same thing)/ **Antagonist** - blocks the effects of a neurotransmitter; for example, a poison called curare blocks AcH (acetylcholine) - causing muscles not to move (paralysis)

a. **Remember:** agonist is like a duplicate key that opens the lock and antagonist is like a key that fits lock but does not open it preventing the right key from entering lock

5. **Sensory neuron** - (afferent neuron) sense information from environment and carry information to the central nervous system traveling through afferent nerves (nerves are bundle of axons) in the peripheral nervous system/ **Motor neurons** (efferent neuron) carry out muscle movement from the central nervous system and travel through efferent nerves in the peripheral nervous system/ **Interneurons** are located in the central nervous system.

a. **Remember:** SAME= sensory-afferent/ motor-efferent

b. **Remember:** In-terneurons are located IN the Central nervous system

c. **Remember:** Nerves are like rope bundles of strings or axons

6. **Central Nervous System** (CNS) - brain and spinal cord / **Peripheral Nervous System** (PNS) - connects the body to the CNS and includes the somatic nervous system - in charge of voluntary movement and the autonomic nervous system - in control of involuntary processing (digestion, heartbeat) and includes the
sympathetic nervous system that speeds up the body and spends energy and the parasympathetic nervous system - returns body to homeostasis (normal relaxed state)

a. Remember: Central nervous system is like a freeway and the Peripheral nervous system is like the exits that connect the towns/body to the freeway/CNS
b. Remember: Somatic nervous system is in charge of volunteer movements like SOME people like to voluntary dance
c. Remember: Autonomic nervous system is in charge of involuntary or AUTOMATIC responses
d. Remember: Sympathetic nervous is like SUPERMAN very SPEEDY and never eats
e. Remember: Parasympathetic nervous system is like a PARACHUTE that slows you down

7. Hindbrain - vital areas of the brain for survival / Medulla oblongata – heartbeat and breathing/ Reticular formation- arousal, alertness, and attention/ Thalamus- relay center for all sensory information except smell/ Cerebellum- balance and fine motor movements/ Pons- left and right coordination and formation of dreams/ Brain stem- connects to spinal cord to receive information
   a. Remember: PAY PARTICULAR RETICULAR ATTENTION
   b. Remember: Cerebellum- SARA has great BALANCE
   c. Remember: Thalamus is the SECRETARY in an office building who tells people where to go except those who SMELL

8. Limbic system- system in control of emotions, hunger, and thirst and is also known as the pleasure/system center as dopamine is made there/ this system includes the: Hypothalamus– fight or flight response, feeding, drinking, body temp, controls pituitary gland- the master gland in charge of releasing hormones throughout body/ Hippocampus – responsible for formation of new explicit memories/ Amygdala – emotion and facial recognition of emotions (fear, anger, aggression)
   a. Remember: to be in LIMBO means your EMOTIONS are all over the place
   b. Remember: Hypothalamus is the “mans” part of the brain- eating, drinking, losing its TEMPERature (fight-or-flight), and ?
   c. Remember: HIPPOS remember how to get around a college CAMPUS because they have great memory
   d. Remember: Never make AMYgdala mad she is very emotional

   a. Remember: Frontal lobe- you hit the front part of your head when you do something impulsive and don’t think
   b. Remember: Occipital lobe- O-h I can SEE
c. **Remember**: Parietal lobe - touch- like playing duck-duck-goose-
PART of the head

d. **Remember**: Temporal lobe - hearing like the TEMPO of the beat

10. **Association areas** - areas of brain that receive information from multiple sources which include the: **Broca’s area** - left frontal lobe on left hemisphere; spoken language / **Wernicke’s area** - left temporal lobe on **left hemisphere**; ability to understand what someone says or writes / **aphasia** - inability to talk or understand (depending on where it affects brain)/ **lesion** - tissue damage resulting from a disease

a. **Remember**: Broaca’a area - speech= BOCA means mouth
b. **Remember**: No one can ever UNDERSTANDS what DR. Wernicke’s says
c. **Remember**: L for left hemisphere L for language

11. Cerebral cortex – most advanced portion of the human brain controlling decision making; distinguishes humans from other animals/ **Right hemisphere** - creative and process emotions

a. **Remember**: cerebral cortex is your CPU= processes information
b. **Remember**: Right EMOTION at a party= Right hemisphere

12. **Endocrine system** - allows communication in the body through **hormones** that circulate in bloodstream controlled by the master gland called **pituitary gland** and connected to the brain through **hypothalamus** - the master of master gland

a. **Remember**: Master P is the pituitary gland
b. **Remember**: Master of the Master P is the hypothalamus the record producer

c. **Remember everyone has a picture of their CAT**

b. **Remember**: M for you get MORE like in an MRI

c. **Remember: all PETS have to drink liquids**

Developmental Psychology - 7-9% (FT5 page 84)

1. **Prenatal (before being born) development** – **germinal stage** - cell divides rapidly/ **embryonic stage** - organs develop and is greatest risk of **teratogens** - any agent that impairs development such as alcohol (leading cause of mental retardation; Fetal Alcohol Syndrome), drugs, caffeine/ **fetal stage** - longest period of prenatal development

a. **Remember**: Teratogens are like RATS that cause harm if they bite you

2. **Nature side of Development: Maturation** - growth of an organism that is not influenced by environmental factors- puberty naturally occurs/ **reflexes** - involuntary, unlearned motor skills such as rooting flex - baby turning head when touched on the cheek for feeding/ **Temperament** - (Thomas and Chess) a natural
tendency to express emotions and needs in a particular way- easy, difficult, slow-to-warm up

a. **Remember: the body has to be PHYSICALLY MATURE-ation to walk**

b. **Remember: everyone inherits a TEMPERament**

3. **Cognitive Development (Jean Piaget)** Piaget’s accommodation- new information that changes an existing schema- mental organization of information/assimilation- blending new info into existing schemas- that expands schema but does not change

a. **Remember: aCCommodation- you have to Change when you go to College**

b. **Remember: aSSimilation- SS stands for same schema**

4. Piaget’s Stage theory- people go through specific stages at specific times-

Sensory-motor stage includes object permanence (understanding that an object exists even though it cannot be seen)/ Preoperational stage- symbolic thinking (a box is a symbol for a fort) but no logical thinking includes egocentrism - inability to take another point of view/ Animism- belief inanimate objects share human feelings- teddy bear/ artificialism- belief events in nature are manmade- God bowling/ Concrete Stage- think logical only about concrete concepts (what is right in front of them- physical contact); includes conservation - recognizing that even though an item can change forms properties (amount) stays same / Formal operational stage- abstract reasoning which is forming hypothesis or if/ then scenarios- if I go out I could then get in trouble- start of good morals includes Personal fable- belief he or she is invincible nothing bad could happen and Imaginary audience- the belief that everyone is watching and concerned what he or she does

a. **Remember: Egocentrism is like the Ego is Center and no one else matters**

5. **Lev Vygotsky- Zone or proximal development**- measurement of what children can do alone versus when others, like parents, are present/ Scaffolding- giving more help when task is difficult and then as child masters task giving less help or as needed

a. **Remember: in the ZONE people can always do more**

6. **Critical period**- certain behaviors must happen at certain times- attachment must happen at birth/ language must happen by age 11-12 Konrad Lorenz - imprinting- following around what sees first after birth

a. **Remember: it is CRITICAL you get your test done in the school PERIOD**

7. Social Development- Attachment- Harry Harlow- examined what contributes to attachment which is a bond between caregiver and infant found: monkeys; contact comfort; cloth monkey and warmth form secure attachments- not food // Mary Ainsworth- measured attachment found: secure attachment- kid misses mom and becomes upset when mom leaves (known as the Strange Situation Experiment) and then show excitement when mom comes back/ avoidant attachment- insecure attachment shown by kid avoiding mom when she comes back/ ambivalent attachment- kid clings and then pushes away when mom comes
back / **Erik Erikson**- Trust vs. Mistrust-believed that trust must happen to form attachment and also for later developmental tasks like identity in adolescence to happen

a. **Remember:** No one likes touching a harry face except HARRY HARLOW

8. Parenting-Diana Baumrind- **authoritative**- also called democratic -as parents support and reason with children- best type- kids become independent and mature or **instrumentally competent**/ **authoritarian**- strict- kids don’t become independent and mature and often get in trouble/ **permissive**- parents don’t do anything- kids do whatever and questions whether parents care and prone to try to get attention- drugs, pregnancy

a. **Remember:** AuthoriaTIVE is the most supportive
b. **Remember:** Authoritrian is like barbarian never allows you to go out
c. **Remember** : Permissive you do not need PERMISSION

9. Adolescence- period between childhood and adulthood- puberty process include development of **primary sex characteristics**- sexual organs responsible for reproduction and **secondary sex characteristics**- nonreproductive characteristics like facial hair- widening hips/ Erik Erikson Psychosocial development: **Identity vs. role confusion**- adolescents search for identity and during **Intimacy vs. isolation** young adults search for love

a. **Remember:** P for Primary
b. **Remember:** S for secondary characteristics that allow you to look S for Socially older

10. Morality- reasoning for choices- Lawrence Kohlberg- **Heinz Dilemma**- moral right vs. legal wrong- Preconventional Morality-based on avoiding punishments obtaining rewards/ Conventional morality- based on reputation or what others are doing or expect behavior of one should be- Postconventional morality- high ethics- personal reasons for choices/ Carol Gilligan opposed Kohlberg’s theory of morality because it did not address women rather she thought women’s morality is based on upholding and maintaining relationships

a. **Remember:** Pre wants to be free to go out and not punished as in Preconventional
b. **Remember:** to be CONSISTENT with what everyone else wants you do to as in CONventional morality
c. **Remember:** POST is like a graduate degree in morality as in POSTconventional morality

11. Adult and Aging- **Social clock**- a preferred timing of social events like a person’s ideal age to get married/ **crystallized intelligence** accumulated knowledge-increases with age/ **Fluid intelligence**- ability to reason or come up with an answer quickly- decreases with age **Alzheimer’s disease**- irreversible brain disorder loss of memory, reasoning, and language- connected with decrease of the neurotransmitter AcH (acetylcholine) which is linked to memory and muscle memory/ **Senile dementia**- loss of mental reasoning due to a stroke, tumor, alcoholism, aging

a. **Remember:** Crystallized is like a CRYSTAL it gets bigger as time goes on
b. Remember: When you pour the FLUID out of glass it goes down like fluid intelligence goes down with age

c. Remember: A for acetylcholine and A for Alzheimer’s

12. Elizabeth Kubler Ross- DABDA- denial, anger, bargaining, depression, acceptance- the 5 stages of death and grieving

Cognition- 8-10% (FT5 page 105)

1. **Encoding** - getting info into memory / Storage- retention / Retrieval- getting information out of memory/ **Long-term potentiation**- increased firing of neurons due to learning of new information resulting in a memory trace or path produced in brain which often involves the release of the neurotransmitters’ glutamate and acetylcholine/ **Semantic network**- new information gets blended or associated with existing memory paths in the brain
   a. Remember: encoding is like typing on a computer you are putting information in
   b. Remember: “Save” is like storage
   c. Remember: “Open” is like retrieval
   d. Remember: long-term potentiation is like a path in the snow- the more you walk back and forth the better the path becomes- same as dendrites becoming bigger shrinking the synapse producing a path

2. **Automatic processing** - encoding that happens unconsciously like what you ate for lunch/ **Effortful processing** - learning a phone number

3. Atkinson and Shiffrin- information processing model – information must pass through sensory, short-term, long-term memory- **Sensory memories** - iconic memory; visual sensory memory that is very brief compared to echoic memory; auditory sensory memory lasts longer than Iconic/ **Selective attention**- what you pay attention to in the environment- is what moves information from sensory memory to short-term memory
   a. Remember: EYEconic you see things but not for very long
   b. Remember: You HEAR ECHOS which seem to last for ever

4. **Short-term memory**- according to George Miller is limited in capacity to 7 items plus or minus 2/ **Working memory**- a person’s thinking abilities or methods of learning material used during short-term memory/ for example using **chunking** - combining items into meaningful chunks like TGIF/ and **Maintenance rehearsal** - repeating terms over and over keeps items active longer in short-term which is limited by a duration of 20-30 seconds /
   a. Remember: Short-term is like a cubical in an office which is not that big (7 items +/-2) and you can’t stay in there very long (20 seconds) so how you work in your cubical is like working memory
   b. Remember: Maintenance rehearsal is like maintaining a parking spot- as you long as you keep repeating or putting quarters in the meter you can stay there as long as you need

5. **Elaborative rehearsal**- providing meaning to information in short-term memory ensuring it goes to long-term memory/ **Types of long term memory**- **Explicit or declarative memory** - facts and figures that require thinking to encode and retrieve (processed within the hippocampus); includes episodic memories-
personal memories/ and semantic memories - general knowledge that everyone knows / 2\textsuperscript{nd} type of long term memory is Implicit or nondeclarative memories - implied memories that do not require thinking (processed in the cerebellum)- includes procedural memories like how to walk / Organizing long-term memory – hierarchical (like a filing system includes your concepts and prototypes) / semantic network - organizing through association of items (red-fire engine) activated through the process of priming- happens unconsciously- say ball, red automatically associated

a. Remember: to elaborate means to add more details so people know what you MEAN
b. Remember: To write EXPLICIT lyrics to a song you had to put THOUGHT into them and sometimes you write about P-ersonal events like P for ePisodic and sometimes you write about general things like everyone knows what a man is like SeMANtic
c. Remember: Implicit means IMPLIED you just know the PROCEDURE of how to tie your shoes- you don’t have to think

6. Factors that affect Retrieval: Serial position effect- items in the middle or most likely to be forgotten; Primacy effect refers to remembering items in beginning of list; Recency effect- refers to remembering items in the rear of list/ Interference theory – Von Restorff effect- remembering an item in middle of list because it is distinctly different from other items

a. Remember: P-ri-macy comes before R-ecency or in the rear of the alphabet
b. Remember: Von Restorff effect- some people may think it is WEIRD to eat cereal (serial) in the middle of the day

7. Proactive interference - impairment of new learning- old phone number preventing learning new phone number / Retroactive interference- impairment of old learning- this year’s locker combination prevents remembering last year’s locker comb/ Retrieval cue failure- or tip-of-the-tongue phenomenon- when retrieval cue is not strong to trigger information in long-term memory/ encoding failure- information never when into long-term memory/ Encoding specificity principles: context dependent memory- retrieval best when retrieval is in same context or room that information was learned or encoded/ mood congruent cues- happy moods retrieve happy memories/ state dependent cues- internal states like hunger retrieve memories where one was hungry/ Mnemonic devices- memory aids- method loci- using mental image of items and their locations to remember also called imagery- using visual memories to figure out problems

a. Remember: retro means old
b. Remember: Method of LOCATION for method of loci

8. Misinformation effect (Elizabeth Loftus) - giving wrong information could affect memories by providing new information or contradicting similar to Piaget’s accommodation- new information that changes an existing schema- mental organization of information

9. Amnesia: Anterograde amnesia- prevention of new memories due to damage of the hippocampus/ Retrograde amnesia- loss of past memories due to trauma to
head/ Source monitoring or source amnesia- memories are often formed without time or place which makes it hard to remember when heard or saw an event

10. Concept- mental grouping based on similarities between items- formal concept- mental group defined by strict rules like a square and natural concept- concept formed from everyday experiences / prototype - best example of that mental grouping or concept that when information matches prototype leads to quick classification of the item

11. Solving problems and making decisions: Formal reasoning: Algorithm - step-by-step procedure that guarantees solution / Informal reasoning- heuristic – rule of thumb, short-cut of algorithm that might not give correct solution / anchoring heuristic - old information that is a mental anchor (opinions) and prevents new learning and connections or requires use of adjustment / representativeness heuristic- decision based on how well information represents prototype- may not be accurate (all people who wear ties are successful) / availability heuristic- decision based on a person’s available information that allows a quick decision (may think breast cancer is most prevalent form of cancer because you know more or hear more about breast cancer and why colleges constantly send you information about their school)

12. Obstacles to Problem Solving: Functional fixedness - inability to see an object has more than one use other than its original use/ mental set- approaching a problem the same way that was successful in past but no longer is successful but still do/ Confirmation bias- only considering information that supports your viewpoints or opinions- similar to an anchoring heuristic/ Framing- the way information is presented affects the way people think- 90% fat free/ Belief perseverance- clinging to an existing belief or opinion regardless of new contradictory information/ Belief bias- when you learn incorrect information and it prevents you from learning the correct information

13. Overcoming obstacles- incubation- stepping back from a problem to see a new perspective/ insight- the sudden realization to a problem

14. Language- Babbling stage (prelinguisitic stage)- One word stage- Two word stage includes telegraphic speech- “daddy big” and overregulation- “I goed there”/
15. **Language Development:** *Noam Chomsky*- language is innate (born with universal grammar- innate knowledge for development of language versus *B.F. Skinner*-language is learned through reinforcement and modeling parent but CANT explain development of speech impediments which are more innate/ **Linguistic relativity hypothesis** (Benjamin Whorf) - language and cognition influence each other causing to improve each other- our culture will affect the way we think which will affect the way we talk/ like Americans having many words that describe time
   
   
   b. Remember: RELATIVELY speaking our culture influences the way we speak (linguistics) and think

16. **Grammar:** **Semantics**- rules that establish meaning of words/ **syntax**- rules that show organization of sentence/ **morphemes**- smallest unit of language that carries meaning like a prefix/ **phonemes**- smallest unit of language that does not carry meaning/ McGurk effect- combination of hearing and vision that allows us to understand speech
   
   a. Remember: there is more to a morpheme because it carries meaning than a phoneme which carries no meaning

### Testing and Individual Differences- 5-7% (FT5 page 227)

1. **Psychometrics**- Sir Francis Galton- father of the measurement of knowledge
2. **Divergent thinking**- discovering or brainstorming as many ideas as possible- important for creativity/ **convergent thinking**- narrowing down ideas to an overall good choice or idea
   
   a. Remember: divergent means to DISCOVER as many ideas as possible and then to CONVERGE on one good idea

3. **Intelligence** - Charles Spearman - *g factor or single gene* (general intelligence) responsible for everything which is determined by a single number like an IQ test/ LL Thurston- believed were 7 primary mental abilities each independent/ Howard Gardner- people have separate multiple intelligence which helps to explain *savant syndrome* when you have a special skill but are overall mentally challenge/ Robert Sternberg- three types of intelligence- *analytical* - problem solving like math and science in school, *practical* - using information for interacting in the environment, *creative* - applying information to different situations like what is learned in elective courses
   
   a. Remember: Charles Spearman was the G-Man
   
   b. Remember: Howard Gardner- multiple intelligences like MULTIPLE items in a GARDEN
   
   c. Remember: Sternberg wore a thinking **CAP** = creative, analytical, and practical

4. **Emotional Intelligence**- Daniel Goleman- *interpersonal intelligence* - ability to understand emotions of others/ *intrapersonal intelligence* - ability to understand one’s emotions.
   
   a. Remember: IntEprersonal = the E stands for Everyone else’s emotions
   
   b. Remember: IntArpersonal = you always give your emotions an A
5. **Measuring intelligence:** Alfred Binet- designed first intelligence test based on how children solved problems rather than what they know first used in French schools / David Wechsler- WAIS test- mostly widely used IQ test based on verbal and performance scores which score is then based on how you perform COMPARED to other people in your age bracket Wilhelm Stern- developed the IQ quotient- MA (mental age) divided by CA chronological age multiplied by 100 equals IQ / Lewis Terman adapted Binet’s test to be used in America called the Stanford-Binet Test (good for children but no MA bracket for adults)
   a. Remember: Alfred Binet wrote the first intelligence test like you strive for A-lfed or B-inet on a test
   b. Remember: Wilhelm Stern had a STERN rule how to figure out IQ
   c. Remember: Lewis Terman was deTERMINed to bring Binet’s French test to America

6. **Test construction** - standardization- defining scores by comparing it to a previous group who took the test / **Validity**- what does the test measure broken down into content validity- questions that cover specific material or correct material/ construct validity- how well the test was written- questions understandable/ criterion (predictive) validity- questions answer a specific question or theory- questions that are designed to see if students are reading the book/ **Reliability**- same results every time the test is given and taken / test-retest is a way to measure reliability is by giving test over and over and looking for similar results- ACT test is reliable as students tend to get same scores/ split-half- comparing odd and even questions also measures reliability
   a. Remember: the Senior class sets the STANDARD that every other class will be compared to
   b. Remember: a VALID driver’s license means it is REAL and a test is REAL when it measures what it is supposed to making it valid
   c. Remember: a friend is RELIABLE if that friend shows up each time on time like a test is RELIABLE when it gives the same result each time given

7. **Normal curve,** also known as a bell-shaped curve; majority falling around average

8. **Aptitude tests** make predictions on how well you will do, such as the ACT / **Achievement test**- measure mastery or what you are supposed to know, like the AP Psych test
   a. Remember: aPitude- the P stands for prediction
   b. Remember: aChievement- the C stands for Cee I know the material

9. **Measures of Central Tendency** / **mode**- most frequently used number / **median**- middle number or score / **mean**- average

10. Skewed distribution - atypical scores that fall away from the average or mean

11. **Measures of Variation** – **Range** - difference from lowest to highest score / **Standard deviation**- how much scores vary from mean

12. **Statistical significance**- resulting data is not determined by chance but raw data

13. **Inferential statistics**- allow the researcher to apply his or her results to the general population

14. **Savant syndrome**- person who has cognitive impairments but excels in one or more abilities of genius level/ Down syndrome- trisomy 21- extra 21st
Motivation, Emotion, and Stress 7.9% (FT5 page 138)

1. **Homeostasis** – the maintaining of a balanced internal state in the body (like body temp) / **Drive-reduction theory** - needs like water and food not being met produce *internal drives* like thirst and water which motivate a person to reduce the drives and satisfy the needs- needs are monitored through homeostasis
   a. Remember: what DRIVES you to get a glass of water? My *NEED for water*

2. **Abraham Maslow** - *Humanistic Psychology* - perspective of psychology that emphasizes a person’s *innate* growth and free will through the motivation to reach *self-actualization* - reaching fullest potential or being all you can be, (Maslow thought Abraham Lincoln and Eleanor Roosevelt achieved self-actualization but never met) through addressing and satisfying levels in the hierarchy of needs – physiological (hunger) first to be satisfied, then safety, then love, then cognitive, finally self-actualization (very few people even reach this level) Clayton Alderfer-did not believe that each level had to be addressed before moving on as seen with Ghandi- not addressing physiological level to reach self-actualization
   a. Remember: humanistic psychologists what you to be the best HUMAN you were born to be
   b. Remember: Self-actualization- is ACTUALIZING realizing what YOU can do

3. **Optimum arousal theory** (Arousal theory) - people are motivated to maintain an optimum or best level of arousal; explains boredom, boring day you search for something more exciting at night to make up for boring day/ Yerkes Dodson law of arousal - performance best when situation offers moderate level of arousal - too boring don’t try, too hard and you give up
   a. Remember: Yerkes vs. Dodson would always be a good game because they are evenly matched

4. **Incentive theory** - *intrinsic motivation* - doing tasks for personal reasons or satisfaction / *extrinsic motivation* - doing tasks for extra incentives like money, extra credit- *overjustification effect* - is the result of giving extrinsic motivation for a behavior that was once intrinsically performed that now is only done if something extra is given like getting paid to play a sport
   a. Remember: I for intrinsic means I want to do it for myself
   b. Remember: E for extrinsic means I need Extra things to motivate me

5. **Industrial-organizational psychology** - apply psychological aspects to improve workplace and employee satisfaction and productivity done through organizational psychology (division of (I/O) and matching employees with the proper job as administered by *personnel psychology* (division of I/O) **Theory Y**- workers need to be challenged and are best motivated through intrinsic motivation/ **Theory X**- workers are lazy and need extrinsic motivation
   a. Remember: Theory X workers need eXtra things to work hard
6. Competence motivation - need to be the best one can be/ Achievement motivation the need to outperform other people as measured through the TAT test measured by David McClelland.
   a. Remember: TAT means Tell A Tale or a story about what you see

7. Hunger - controlled by Hypothalamus / lateral hypothalamus starts hunger through the release of the hormone orexin / ventromedial hypothalamus stops hunger / Glucose- sugar that circulates through body- used for energy, when glucose is low we feel hungry / Insulin converts glucose to energy- when goes up glucose does down and you get hungry
   a. Remember: L for lateral means L for let’s eat
   b. Remember: orexin is a hormone that makes you hungry like OREOS make you hungry

8. BMR- basal metabolic rate- rate at which body conserves or burn off calories- obese people that have a BMI (body mass index of greater than 30 is obese and have a higher BMR.) CCK short term signals for satiation or fullness/ Leptin-based on amount of fat in blood stream long-term signals for satiation or fullness-leptin resistance- obese people that have brains that don’t respond to amount of leptin in blood/ Set point theory- body weight is maintained through homeostasis- a person’s ideal weight that affects the way the BRM works
   a. Remember: CCK is a short word for short-term satiation or fullness
   b. Remember: L for leptin like l for long-term satiation or fullness

9. Theories of Emotion that involve the right hemisphere- William James and Carl Lange- James-Lange theory- stimulus (seeing a snake) leads to physiological arousal and from this arousal a person then experiences emotion (like heart beating then experience emotion of fear); can’t support spinal cord injuries or that a heart can race for a number of emotions which explains why polygraphs that just measure changes in the body and not a good device to determine lying for example being nervous same body response as lying / Walter Cannon/ Philip Bard- Cannon Bard theory- physiological response and interpretation of stimuli by the brain occur at the same time through the thalamus relaying signals to the autonomic nervous system and cerebral cortex resulting in emotion- a snake causes the body to show change as brain interprets this as a fearful stimulus at the SAME TIME/ Two-factor theory- Schachter and Singer- consider more cognitive components and suggest physiological arousal and a cognitive label that explains why there is arousal taking place “My heart is racing because I am about to take a test” resulting in emotion- often people mislabel arousal in body, such as loving someone in a scary situation / Richard Lazaras - cognitive mediational theory; appraisal or the interpretation of a stimuli results in emotion… the interpretation of leaves starting to blow leads to fear (difference between Two-factor and cognitive mediational theory is two-factor interprets changes in body and mediational theory interprets the situation) Robert Zajonic- emotions happen without brain interpretation; jump then think about after why jumped which means information goes directly to amygdala- emotional control center that recognizes face expressions and the proper emotion associated with each/ instead Zajonic states information does not first go to the cerebral cortex or frontal lobes that interpret information
a. **Remember**: James would only get the answer (emotion) if Lange (body) told him

b. **Cannon and Bard always came up with the answer (emotion) at the same time**

c. **Schachter and Singer were both labeled with S’s/ and Schachter loved to play charades while Singer always had to LABEL what Schachter was trying to perform**

10. **Stress**: Walter Cannon- Fight-or-Flight response- hypothalamus triggers sympathetic nervous system which causes *adrenal medulla to release catecholamines* which include hormones adrenaline and noradrenaline to be released in the body or through the endocrine system and neurotransmitters epinephrine and norepinephrine to be circulated in brain preparing for a fight or a flight reaction

   a. **Remember**: CATecholamines are like cats which are very quick

11. **Reacting to Stress**: General Adaptation syndrome (Hans Seyle) - **Alarm reaction** (fight or flight reaction), **Resistance stage** (release of stress-related hormones-corticosteroids) which reduce inflammation in body and provide energy to battle stress but reduces lymphocytes or our white blood cells of the immune system making us more prone to get sick), **Exhaustion stage** (body reserves become low and get sick)

   a. **Remember**: Hans Seyle asked ARE you stressed- A for Alarm/ R for Resistance/ E for Exhausting in his GAS theory

   b. **Remember**: c-OR-ticosteroids help you battle stress like you go to the OR for an operation

12. **Types of Stress**: **Conflicts** - approach-approach- choosing between 2 equally like choices/ avoidance-avoidance- choosing between choices don’t like / Approach-avoidance- one item that has good and bad points- most stressful / Multiple approach-avoidance- 2 items that have good and bad points/ **Life changes**- according to the social readjustment scale- losing a parent for child or a spouse for an adult is considered most stressful

13. **Constructive Coping**- *emotion focused coping* - handling emotions associated with a problem/ *problem-focused coping* - addressing and fixing problem associated with problem/ **Individualistic cultures**, such as America who stresses ourselves, use problem-focusing coping/ and **Collectivistic cultures**, that stress the good of the group, use emotion-focused coping

14. **Explanatory style**: **optimistic**- give specific reason for outcome- **pessimistic**- give usual negative general, vague explanation for outcome, and often attack themselves personally for outcome

   a. **Remember**: optimistic the O means that O-h there is reason for why I failed and pessimistic P stands for blaming it on the P-ersonality

15. **Type A personality**- very competitive and impatient prone to coronary heart disease number 1 killer among humans/ **Type B**- more relaxed

   a. **Remember**: Type A stands for Angry and Annoyed

16. **Catharsis theory**- according to Freud- people must find socially acceptable outlets for frustration and release pent up aggression or will self-destruct or doing something really stupid
a. **Remember: Catharsis- best to get out your stress by painting some ART**

17. **Acculturative stress**- stress trying to assimilate to a new culture

18. **Biofeedback**- being able to consciously control your autonomic nervous system and calm yourself down

**Sensation and Perception- 7-9% (FT5 page 164)**

1. **Sensation** - using senses to detect or sense information/ **perception**- the brain organizing or interpretation of information/ **Bottom-up processing**- examining the individual components in order to make interpretation- similar to the school of structuralism and introspection (looking at each piece of a puzzle to figure out what the object is)/ **Top-down processing**- brain using memories or previous experiences to give opinion and focusing more on the whole- like the picture of a box to interpret

2. **Absolute threshold**- minimal stimulation needed to detect a stimulus 50% of the time/ **Difference threshold** (just noticeable difference JND) - ability to detect a difference between two stimuli based on minimum amount of difference between the two explained through **Weber’s law** - in order to be able to recognize the difference between two stimuli they must differ by constant proportion relative to size of original stimuli- one gets louder the other stimuli must get proportionately louder (Fechner’s law- if there is a continuous, gradual change then it will be harder to notice changes, but if got loud suddenly then a noticeable change is detected)/ **Signal detection theory** – mathematical formula used for detection that depends on sensitivity or strength of stimulus (absolute threshold) and **selection attention**- focusing on stimulus and **response criterion** which is the willingness to respond to stimulus- motivation of a person to detect a stimulus

3. **Parts of the Eye** - **Cornea** – protects eye and bends light/ **Iris**- colored portion of eye that regulates size of **pupil**- part of the eye that allows light to enter/ **Lens**- focuses on image through **accommodation** – refers to the process of focusing/ **Retina**- where **transduction** occurs- the conversion of physical energy into neural code also contains the **sensory receptors**- specialized cells that respond to certain fluctuations in environment also called **photoreceptors** for vision- **rods** activated in dim light and peripheral vision (slower than cones) and **cones** activated in bright light, color vision, fine details and stored in **fovea** - center of retina where visual acuity or sight is best)/ **Bipolar cells**- gather information from rods and cones and pass information to **Ganglion cells**- contains axons that form optic nerve which sends information to the thalamus and then occipital lobe/ **Optic chiasms**- place in the brain where the optic nerves cross (left part of retina goes to right side of the brain and vice versa)/ **Blind spot**- caused where the optic nerve leaves back of the retina at the **optic disk**- where no rods and cones are present

a. **Remember: cornea is like screen protector**

b. **Remember: Iris- the I stands for I control the pupil**

c. **Remember: Cones are the CEO- they (C) see (E) everything (O) other than at night and work best when they are the CENTER (fovea) of attention**
d. **Remember**: Rods stick to the side (of the eye and see peripheral vision) and do their best work at night

4. **Color vision** – *hue* refers to color determined by wavelength/ *amplitude*- height of wave- determines brightness and loudness of a sound- **Trichromatic theory**; three different kinds of cones - red sensitive- long wavelengths, green- medium wavelengths, blue- short wavelengths- the combination produces different colors and explains color blindness- if no red cone don’t see red / **Opponent- process theory**- vision result of being processed in opponent pairs; red on, green off; blue on, yellow off; black on, white off. This explains **afterimages**- look at green dot look away and then see red dot.

   a. **Remember**: when you look up it gets brighter- taller the wave the brighter it is
   
   b. **Remember**: smurfs are short and blue/ leprechauns are green and medium height, and Clifford was a long, red dog

5. **Hearing (audition)** - **outer ear** (ear drum and auditory canal)- funnels sounds / ear drum at end of ear canal protects ear from debris / **Middle ear**- mechanical portion of the ear that contains three tiny bones - hammer, anvil, stirrup which vibrate in response to sound waves and amplify sound waves; if damaged is associated with conduction hearing loss treatable through hearing aids / **Inner ear**- where *transduction* takes places- contains **cochlea** which is lined by the **basilar membrane** (surface of the cochlea) which is embedded with **hair cells** (cilia) the sensory receptors for hearing- vibrations cause basilar membrane to move causing hair cells to move allowing us to hear/ damage to inner ear leads to **sensorineural hearing loss**- permanent or a possible cochlea implant/ **Frequency theory** (also called **volley principle**) speed at which the frequency travels through the basilar membrane will indicate what we hear/ **Place theory**- where the vibration hits on the basilar membrane will indicate what we hear.

   a. **Remember**: the middle ear HAS 3 tiny bones- **Hammer, Anvil, Stirrup**
   
   b. **Remember**: the cochlea is the house and the house has a floor called the basilar membrane that has carpet called the hair cells and when the house moves the floors shake and the carpet moves
   
   c. **Remember**: Place theory is like where you PLACE your hands on the chords of a guitar
   
   d. **Remember**: Frequency theory- is like shaking the rug or basilar membrane- more you shake the more dust comes up the louder the noise

6. **Vestibular sense**- sense of balance and heard position- monitored in the **semicircular canals** and **vestibular sacs of the inner ear**

   a. **Remember**: canals have water in them and when the water starts moving people hold on in their boats because they are losing their balance

7. **Taste** (gustation) - sweet, salty, bitter, sour, umami- sensory receptors- located on tongue in clusters called papillae- decrease with smoking and drinking / **Olfactory sense** (smell) olfactory nerve transmits sensory information from nose to **olfactory bulb** which allows the brain to add flavor to smell (not thalamus as all
other senses do) which allows very quick (faster than any other sense)/ ansomia- inability to smell/ synesthesia- “odd interaction of the senses- tasting colors/
sensory adaptation- diminished sensitivity to an unchanging stimulus- quickest for smell/ Habituation when one is continuously exposed to stimuli, like living by an airport and no longer is aware of the noise / Sensory interaction- taste and smell interact to produce perception of what we taste and smell

8. Touch - pressure- detected through pacinian corpuscles- spring-like when compressed detect touch, warmth, cold (no receptors for hot which is the combination of warm and cold receptors), and pain; most receptors located in face and hands, least on back

9. Gate control theory of pain - small fibers open gate, large fibers close gate- gate open feel pain- endorphins block pain as well as distraction focusing on something other than pain/ neurotransmitter substance P opens the gate

10. Kinesthetic sense- body position and movement of body parts- allows us to know where our body parts are without looking detected through proprioceptors- receptors in our joints that give information about location of individual body parts

11. Gestalt psychology- study how we perceive or interpret what we sense through emphasizing the organized whole - the whole is greater or different then the sum of its parts – and by separating the figure (object) from ground- background and also how we group items- proximity- group based on closeness of items, similarity, and closure- our brain filling in the gaps= quicker we group an item the quicker we can perceive or interpret the item

12. Depth perception - visual cliff (Gibson and Walk) tests depth perception (it is the result of nature or nurture) babies don’t cross; depth perception inborn (nature)/ monocular depth cues- relative size- closer an object larger it is/ interposition- object closer that overlaps other object/ texture gradient- see more details when object is close/ relative height- higher up the smaller the object is like the moon/ binocular depth cues- retinal disparity- 2 eyes in different places produce slightly different images and convergence- the straining of the eye muscles when objects come too close

13. Constancy- knowing an object remains the same despite changes in appearance- size- door opening and closing, color- sun could affect, and shape- turning in different positions

14. Autokinetic effect- when you stare at a single point of light in a darkened room- the light will appear to move/ phi phenomenon- the rate or speed at which lights get turned on could show direction or movement
15. **Cocktail party effect** - the ability to focus or pay attention while also focusing on other things going on - talking to someone at a party while watching what others are doing / **Inattentional blindness** - inability to detect objects due to distraction

**States of Consciousness- 2-4% (FT5 page 191)**

1. An EEG measures brain activity - **alpha waves** - alert but drowsy could fall asleep / **beta waves** - is wide awake / **delta waves** - deep sleep during NREM stage 4 / Reticular formation part of the brain in charge of arousal (ARAS- **ascending reticular activating system** - comprised of afferent nerves that run through reticular formation in charge of arousal)
   a. Remember: a teacher shouts “Ahhh!” when you have alpha waves because you are about to fall asleep
   b. Remember: you beta-tter be awake when you take the AP exam
   c. Remember: DE-tla for DE-ep sleep

2. **Circadian rhythms** - occur every 24 hours based on environmental cues - if no environmental cues have a tendency to drift toward a 25 hour schedule; monitored by the **suprachiasmatic nucleus** - sensor in the hypothalamus - which receives input from the retina about lightness which based on this instructs the pineal gland to either release or decrease that amount of the hormone **melatonin** – increase when dark then become tired/ ; could be affected by jet lag
   a. Remember: the suprachiasmatic nucleus is like light sensor for your outdoor light detecting differences in sunlight thus turning on the lights
   b. Remember: when melatonin gets released you MELLOW out and fall asleep

3. Each sleep cycle (stage 1 – 2 – 3 – 4 – 3- 2- REM (does not go back into stage 1 which is just falling asleep) is 90 minutes- last four hours of sleep mainly spent in REM and Stage 2 NREM sleep.

4. **Restorative sleep theory** - Stage 4 NREM (deep sleep); body repairs itself (physical/muscle damage) delta waves are produced here- no brain activity; sleepwalking, sleep talking, bed wetting, and night terrors occur here (due to immaturity of nervous system and babies tend to spend the most of sleep in Stage 4/ REM sleep is when the brain repairs itself

5. **Rapid Eye Movement (REM) sleep** – occur in the pons and midbrain - vivid dreams occur; also known as **paradoxical sleep** - muscles are paralyzed, relaxed but other systems (the brain and autonomic nervous system) working, nightmares occur here / as night progresses more time is spent in REM

6. Freud’s view of dreams – wrote book titled **Interpretation of Dreams** / **manifest content** - remembered part of a dream / **latent content** - underlying meaning of dream - what Freud was interested in as it describes unconscious conflicts (dream analysis)
   a. Remember: manifest- “man I had a crazy dream” you have to remember the dream in order to state that

7. **Activation-synthesis model of dreaming** (Hobson and McCarley) – dreams are nothing more than neural bursts (activation) and our brain puts these bursts together to form a story (synthesis)
a. Remember: activation-synthesis is similar to fireworks going off in your brain and when you watch the fireworks you try to make sense of the patterns.

8. Insomnia- most common sleep disorder- inability to fall asleep and stay asleep/ narcolepsy- sudden falling asleep when should not/ Night terrors- occur in Stage NREM 4/ Nightmares occur in REM sleep/ REM rebound- when not get enough sleep go right into REM sleep instead of normal sleep cycle.

a. Remember: I for insomnia= I can’t fall asleep.

9. Tolerance- more you do the more you need/ withdrawal symptoms associated with physical addiction/ Alcohol- affects GABA- neurotransmitter that calms brain down/ stimulants affects dopamine- pleasure neurotransmitter associated in the hypothalamus of the limbic system- cocaine can cause induced psychosis- because of too much dopamine activity/ Opiates are agonist or mimic endorphins- body’s natural painkillers.

a. Remember: G for GABA- G for getting calm.

10. Hypnosis- state theory- during hypnosis an altered state of consciousness is produced (unconscious) as described by Ernest Hilgard dissociation theory of hypnosis which involves tapping into the unconscious or hidden observer/ role theory- a person just acts as if they were hypnotized based on what others tell them they should feel or act.

Learning- 7-9% (FT5 page 207)

1. Classical conditioning (Ivan Pavlov), aka association learning - automatic behaviors / UCS unconditioned stimulus- natural producing stimulus like food or shocks - UCR- unconditioned response- naturally occurring response like salivation, vomiting that only occurs to a UCS / CS conditioned stimulus or learned stimulus- a once neutral stimuli that when associated with a UCS now produces a CR conditioned response- learned response; Acquisition (learning) pairing a bell (neutral stimulus) and the UCS food will result in the bell becoming a CS as the bell by itself now produces salivation called the CR/ Timing- the NS (neutral stimulus) must be presented BEFORE the UCS/ Robert Rescorla stated that the NS must predict and is a reliable source that UCS will occur / Generalization CR has to occur because similar stimuli resemble the original CS and cause the CR / Discrimination occurs if the stimuli is too different from the original CS the CR will NOT appear / Extinction stopping the learned CR by NOT Giving the UCS -food after the CS- bell / spontaneous recovery - reappearance of the CR after a period of time after extinction took place with reintroduction of UCS during the process of reconditioning/ Second or higher order conditioning- a new neutral stimulus (like a whistle) is repeatedly paired with a previous conditioned stimulus (like a bell) which will later also cause a conditioned response.

a. Remember: UCS and UCR- “U did not have to learn this association”

b. Remember: CS and CR: “C what I have learned”

c. Remember: Generally speaking the stimuli are the same for generalization.

d. Remember: Di-scrimination is too Di-fferent.
2. **Conditioned emotions** - Little Albert - conducted by John B. Watson and Rayner - very unethical - white rat (NS) + loud noise (UCS) led to white rat (CS) causing fear of white rat called the CR/ *generalization* occurred when Albert became scared of similar stimuli to the white rat

3. **Operant conditioning** (B. F. Skinner) - voluntary behavior - how you operate is based on the **Law-of-effect** (Edward Thorndike) - behavior that is rewarded will be repeated or stamped in/ behavior that is punished will be decreased or stamped out/ Operant Chamber- Skinner used **Shaping** - using reinforcement to guide behavior towards a desired outcome or action while working with pigeons to get them to move through a maze
   a. **Remember: Law of Effect or Extra credit- more you get the more you do**
   b. **Remember: How you OPERATE depends on what you get- something good do it again/ something bad don’t do**

4. Positive means adding / Negative means removing / **Reinforcement** **INCREASES** behavior; Positive reinforcement - presenting or adding a desired (appetitive) stimulus following or after a behavior is performed increasing chances of that behavior being repeated / Negative reinforcement - removing an unpleasant (aversive) stimulus following or after a behavior will INCREASE that behavior to happen again (smoking removes withdrawal symptoms (aversive stimulus) increasing behavior of smoking) / **punishment DECREASES** behavior; Positive punishment – presenting or adding an undesired (aversive) stimulus after a behavior to decrease that behavior (spanking or shocking to decrease a behavior) / Negative punishment – removing desired (appetitive) stimulus after a behavior to decrease that behavior (taking car away to decrease you staying out past curfew)

5. **Types of Reinforcers:** **Primary reinforcer** – needed for survival (food, water, pain reduction) works best with animals / **Secondary or conditioned reinforcer** - learned reinforcer like money or pay raises- works best with humans
   a. **Remember: P for Primary P for Pizza**
   b. **Remember: S for Secondary S for Social things**

6. **Schedules of Reinforcement:** Continuous reinforcement schedules - reinforcement occur every response; good for initial learning but will lead to extinction rapidly once reinforcement stops/ Partial reinforcement schedules- reinforcement not every time; good for maintaining behavior and preventing extinction- **Schedules of partial reinforcement** – *interval* is time; *ratio* is number of behavioral responses / fixed means does not move / variable- varies or changes/ **Fixed-ratio** - paid after every 10 lawns cut / **Variable-ratio** - slot machines- unpredictable number of pulls of lever / **Fixed-interval** - quiz every Friday / **Variable interval**- pop-quiz- never know when (Variable schedules are the best type of partial reinforcement schedules to prevent extinction)

7. **Cognitive map** (Edward Tolman) - mental representation of a familiar place that was previously learned through reinforcement / **latent learning** – learning that
takes place but isn’t shown until it needs to be or when reinforcement is given like at a football game

a. **Remember: a cognitive map is like a Garmin GPS**

8. **Martin Seligman**- founder of Positive Psychology- believed in **learned helplessness**- that when reinforcement is not given an organism will eventually give up

9. **Observational learning** (Albert Bandura) - Bobo doll study - kids who watched adults praised for beating bobo doll tended to do the same - **mirror neurons** used for observational learning

10. **Taste aversions** (John Garcia) – alcohol (UCS) = vomiting (UCR) / neutral stimulus (NS) Red soda / Red soda (NS) + alcohol (UCS) = CS Red soda causing vomiting (CR) - believed not all can stimuli can be conditioned like a bottle causing vomit

**Personality- 5-7%** *(FT5 page 244)*

1. **Psychodynamic approach** (Sigmund Freud) / Unconscious - not aware but controls personality / Preconscious or subconscious - easy to retrieve- memories; thinking about what you had for dinner last night / Id – present at birth located in the unconscious and demands immediate gratification because it operates on **pleasure principle** / Ego – the decision maker; largely conscious and operates on **reality principle**; tries to find ways to satisfy the Id while being realistic.

   **Superego** - morals and ethics; formed through defense mechanism of identification with same sex parent that arises from resolving Oedipus complex in the psychosexual phallic stage

   a. **Remember: Id= I Do whatever I want**
   
   b. **Remember: Ego= There HE GOES and makes a decision**
   
   c. **Remember: Superman had good morals and ethics**

2. **Defense mechanisms** - ego uses to reduce anxiety caused by conflicts between the id and superego / **Repression** - found in all defense mechanism; automatic unconscious ejection/rejection of traumatic desires, thoughts / **Regression** - retreat back to infantile reaction / **Denial**- don’t accept truth / **Reaction Formation**- say or do opposite of unacceptable urge / **Projection**- mentally putting weakness onto other people; I’m overweight, now I will say everybody else is overweight to make feel better / **Rationalization**- justify behavior through excuses / **Displacement** - taking out physical anger on less threatening person or object especially when having a bad day / **Sublimation** - substituting acceptable actions or thoughts for unacceptable unconscious thoughts or actions; playing football instead of displaying aggression / **Compensation**- doing something nice to make up for doing something bad

   a. **Remember: Projection- mentally PROJECTING the plot of a movie on a screen**

3. **Neo-Freudians**- followers of Freud- **Alfred Adler** - Inferiority complex - motivation to become superior by overcoming childhood inferiority or being dependent on parents / **Karen Horney**- thought Freud was too male dominated; believed social relationships responsible for personality development / **Carl Jung**- collective unconscious- generational knowledge that is passed down
through generations - information contains archetypes which are universal symbols - snakes are evil - passed down from past ancestors that help promote survival by providing bad feelings also believed personality comes from energy of being an introvert - keeping to oneself or extrovert being around other people and social situations.

a. Remember: A’s for Alfred Adler= if you get 2 A’s you are superior in class
b. Remember: we collect our family history and give it to each other

4. Humanistic perspective - emphasized free will and self-growth and awareness that is thought to be innate / Carl Rogers- self-concept - beliefs about oneself that are influenced by conditional positive regard- the belief that you are only loved when you meet their expectations or rules which leads to distorting self-concept or lying/ or unconditional positive regard- no matter what you do or who you are people will love you which leads to a healthy self-concept or congruence// Rogers also believed in the actualizing tendency - the innate and internal motivation to be competitive and succeed

a. Remember: Meet my CONDITIONS and I will love you.
b. Remember: U for unconditional- U can do whatever you want and I will still love you

5. Trait theory – a description of behavior like a personal ad / Gordon Allport researched traits- believed people have one cardinal trait- the most influential trait that determines personality (not present in everyone) and also source traits or central traits- very few- building blocks of personality/ surface traits or secondary traits- what other people can see often based on the social setting / cardinal trait= caring like MLK/ source traits= kind, trusting, dependable/ surface traits- impatient in stressful situations

a. Remember: “On the surface he seemed like a nice guy, but deep down (source) he was just an idiot.”

6. Hans Eyensck- certain traits are inherited like: extraversion or introversion/ emotionality (neuroticism) or stability and a person’s level of psychoticism- are welfare or caring for other people

7. Raymond Cattell – used a Factor Analysis - mathematical formula that shows how certain traits or items are related to other traits which resulted in 16 source traits in people / Paul Costa and Robert McCrae narrowed the 16 down to the Big Five Traits- Openness or curious, Conscientiousness or organized, Extraversion or outgoing, Agreeableness or forgiving, Neuroticism or anxious (OCEAN)

a. Remember: factor analysis is like match.com- one answer will lead to many personality traits

8. Social-cognitive perspective- Albert Bandura- Reciprocal determinism- personality results from 3 parts: cognitive (self-efficacy beliefs- our thoughts about how we will do at a task our confidence), behavior, and environmental factors which means each part can influence the other part / Julian Rotter- stated our expectations of events or outcomes determine our personality- external locus of control – other people and situations control you / internal locus of control- you control your life and situations/ Walter Mischel- believed in cognitive personal variables- and believed that expectations about a situation dictate
personality and that because of this personality is not as consistent as people believe

- **Remember:** self-efficacy is the Little Engine that Could- “I think I can”
- **Remember:** I for internal- “I am in control of the situation”
- **Remember:** E for external- “Everyone else besides me is in control of the situation”

9. **Measuring personality** - Projective personality tests- tests to assess the unconscious that are left for interpretation by tester: Rorschach inkblot test- comprised of 11 inkblots / TAT thematic apperception test- ambiguous scenes or pictures requiring a participant to tell a story- also used to measure a person’s need for achievement motivation- problems with projective tests is that they are vague and require interpretation by tester which maybe biased/ Objective personality or self-report inventories test are multiple-choice or have a specific question and answer- easy to grade but participants can’t explain their answers-the MMPI is the most widely used objective personality test that was originally designed to measure abnormal behavior
  - **Remember:** T-a-T- Tell A TALE of what you see

Abnormal Psychology 7-9% (FT5 page 263)

1. Philip Pinel demonstrated through syphilis that some disorders could have physical origins/ negative criticism of labeling people with disorders can sometimes lead to self-fulfilling prophecy- living up to expectations or label/ Deviant behavior being different from most people within a culture/ Etiology- refers to finding possible causes that contribute to psychological disorders

2. Anxiety disorders - feelings of nervousness and apprehension / Generalized anxiety disorder - anxiety about generally everything / Panic disorder – unexplainable panic attacks / Phobia - irrational fear- most common agoraphobia- fear having a panic attack in public resulting in never leaving home / Obsessive-compulsive disorder – obsessions are thoughts, compulsions are actions to relieve or distract thoughts / Post-traumatic-stress disorder- reoccurring memory that interrupts daily functioning / Causes of anxiety disorders: high activity in Frontal lobe and Amygdala shows a lack of GABA- neurotransmitter for slowing down brain activity and high activity of the neurotransmitter norepinephrine- in charge of arousal

3. Mood disorders - Major-depressive disorder - major depression for at least 2 weeks- very severe often requires intervention / Dysthymic disorder- milder for of depression, can usually perform daily routines but can last years / Bipolar disorder - extremes of altering between mania and depression / Bipolar 1 – manic phase you could be a harm to yourself or others, requires hospitalization / Bipolar 2- depression with hypomania (milder form of mania) / Cyclothymic disorder- similar to dysthymic for depression, less extreme bipolar / Causes of mood disorders: for depression less activity in Frontal lobe and neurotransmitters serotonin (too little for depression) norepinephrine (too little for depression) and opposite for manic episodes as well as low levels of dopamine- in charge of pleasure
4. **Dissociative disorders** - self has become dissociated or separated from previous memories and identity / **Dissociative amnesia** - loss of a certain memory or part of life due to a traumatic event / **Dissociative fugue** - loss of identity and moving to new location / **Dissociative identity disorder** - two or more distinct personalities not aware of one another/ Causes could include **repression** of latent material or traumatic episodes

5. **Somatoform disorders** - symptoms not due to physical reasons / **Hypochondrias** is- imagined illness / **Conversion disorder**- anxiety or stress is converted in a loss of physical functioning or sensory system- blindness due to traumatic event

6. **Schizophrenia**- psychotic- can’t distinguish between reality and fiction - **positive symptoms**: the addition of delusions (false beliefs), hallucinations (false sensory awareness- auditory being most common) and disorganized thinking / **Negative symptoms** - loss of cognitive abilities: (word salad language does not make sense often use neologisms- made up words) and emotions- flat affect- no emotion/ **Schizophrenia Types**: *Paranoid* - fear of others and delusional and experience hallucinations considered most common / *Catatonic* - variations in physical stature- waxy flexibility- no movement / *Disorganized* - bizarre thinking / *Undifferentiated* - does not fit any type / Causes of schizophrenia: large fluid-filled spaces (ventricles); smaller Thalamus; frontal lobe- slower thinking; more receptor sites and over production of **Dopamine** / Prenatal viruses during pregnancy

7. **Personality disorders** - inflexible and lasting behavior / Anxiety related: *Avoidant personality disorder* - sensitive about being rejected/ *Dependent personality disorder*- very clingy/ Odd related: *Paranoid personality disorder*- distrust others/ *Schzoid personality disorder*- hermits- no social relationships/ *Schizotypal*- other people avoid because very odd- *Borderline personality disorder*- instability of emotions and behavior/ *Antisocial personality*- lack of conscious may develop from conduct disorders in childhood/ *Narcissistic*- preoccupation with importance of oneself and not considering other people

8. **DSM-IV-TR**- manual that provides classifications and techniques for treating disorders- made by many professionals so everybody will be on the same page and allows for understanding and proper treatment of a disorder / can stigmatize person when given a label of a particular disorder broken down into 5 axis- axis 1 includes clinical syndromes/ axis 2 includes personality disorders and mental retardation- lifelong characteristics that are not tied to specific experiences or periods of life/ axis 3- general health/ axis 4- environmental factors/ axis 5 how well a person can function in society/ **DSM-V** set to be released in 2013

9. **Explaining disorders**: **Diathesis-stress model**- suggests that disorders are the result of genetics (diathesis) and how much stress a person encounters / **Biopsychosocial model**- disorders are the result of biological factors, psychological factors, and social factors

**Methods of Therapy 5-7% (FT5 page 290)**

1. **Psychotherapy**- sessions between a therapist and client with the hopes of providing insight into problems/ **Eclectric approach**- approach that uses techniques from various therapies to treat disorder
2. **Psychoanalysis** - Freud - problems in the unconscious and noticing patients had problems without any physical causes / **Resistance** - unconscious blocking of anxiety material - not talking about / **Transference** - unconsciously transferring emotion unto therapist which was intended for others who are actually to blame / **Interpretation** - meaning derived from resistance and transference / **Free association** - patient says whatever comes to mind / **Psychodynamic therapy** or **interpersonal therapy** - shorter sessions - focus on current issues and less expensive than traditional psychoanalysis which is long and expensive

3. **Humanistic therapy** - increasing self-acceptance and self awareness of patients / **Client-centered therapy** - Carl Rogers believed that if a therapist displayed the following characteristics the patient or client can direct and discover solutions and problems to their life - **Empathy** uses *active listening or reflection* - repeating back what patient states - showing you are paying attention, unconditional positive regard - showing patient that you understand and don’t judge what they have done, genuineness - therapist is honest with patient and is open about own life - these therapist qualities make it possible for patient to direct session and discover solutions to own problems which leads to increased self-confidence as he or she discovered their own problems and solutions

4. **Behavioral therapy** - uses classical conditioning / **Systematic desensitization** (Joe Wolpe) - based on classical conditioning - type of counterconditioning that Mary Cover Jones first used through pairing frightening stimuli with relaxed thought instead of fearful thought as anxiety causing stimulus is presented - involves patients develop an anxiety hierarchy which has most fearful to least fearful aspects / patients learn progressive relaxation techniques and are asked to develop a control scene which will be the NEW and BETTER conditioned or learned response replacing original NEGATIVE or FEARFUL condition or learned response / **Aversive conditioning** - counterconditioning that produces unwanted response (nausea) with unwanted behavior (drinking) / opposite of systematic desensitization / **Exposure therapy** - flooding - continuously exposing someone to a feared object or situation

5. **Behavior modification** - uses Operant conditioning - **token economies** - positive reinforcement - giving tokens after desired behavior increases behavior being repeated and also **Extinction** - nonreinforcement - not giving expected response after a given behavior - like throwing a temper tantrum and expecting attention

6. **Cognitive-Behavioral therapy** - **Albert Ellis - Rational-emotive behavioral therapy** - uses ABC model - a= activating event (not getting a job), b= belief (I am never going to get job because I am not smart (could it B because of my B-elifs) which actually causes c= consequence= depression - goal of therapy is to address and correct bad beliefs

7. **Cognitive therapy** - new thinking - **Cognitive therapy-Aaron Beck** - address unrealistic and distorted thinking (cognitive biases) by actively testing false beliefs in real life situations

8. **Psychiatrist** have medical degrees and can prescribe medications; **Biomedical therapy Drug therapy** - **Thorazine** - a type of neuroleptic used to treat schizophrenia - blocks activity of Dopamine reducing the positive symptoms - can produce side effects like **Tardive dyskenesia** - similar to Parkinson’s resulting
from too little dopamine/ Valium used for anxiety boosts effects of GABA/
Prozac, Zoloft and Paxil which are called SSRIs- selective serotonin reuptake
inhibitors used for depression with slowing down the process of the reuptake of
Serotonin allowing it to cross the synapse and get to the next neuron
9. Positive psychology- developed by Martin Seligman- which emphasizes positive
human characteristics and teaches people to focus on positive aspects and life
experiences in order to reduce learned helplessness- which is the tendency for
people to give up when continuously not successful
10. Group therapy - cost effective, group support and understanding
11. Community psychology- providing treatment to people in poverty or
disadvantaged areas due to deinstitutionalization- the shutting down of mental
hospitals
12. Meta-Analysis- gathering lots of information and resources to arrive at a
conclusion

Social Psychology 8-10% FT5 (page 310)
1. Self- schemas- learned and automatic patterns of reacting and acting is situations
2. Social comparison- comparing oneself to a reference group- a group similar to
you that allows you to make conclusions and interpretations of behavior and
situations could lead to relative deprivation- believing that since others have you
should also have- entitlement
3. Self-fulfilling prophecy – having a belief of an outcome or situation and then
behaving in a manner (often not aware you are acting this way) to make outcome
come true as shown in the Pygmalion Study where teachers indirectly acted
favorably to students that were supposed to be smart
   a. Remember: Fulfilling your prophecy or thoughts about yourself or
      outcome
4. Attribution theory- how we explain our and others behavior: Fundamental
Attribution Error (FAE) – attributing behavior of another to internal
(dispositional) factors (being lazy) and underestimating situational attributions or
factors / Actor-Observer bias – attributing behavior of another to internal or
personal dispositional factors, but attributing your own behavior in same situation
to external (situational) factors./ Blaming the victim- just world hypothesis- bad
things happen to bad people- people get what they deserve
   a. Remember: DisPositional- the P stands for personal reasons
   b. Remember: I always get As (you-A for actor) so it must be a
      situational factor if I don’t get an A, but (O for observer) O-h you it is
      because you are not smart.”
5. Self-serving bias– attribute success to internal dispositional or personal factors,
but when fail blame on external situational factors / Self-handicapping – offering
an explanation to an outcome prior to completion.
6. Attitude – The power of the situation and role on attitudes (Zimbardo’s Stanford
Prison Study) – situation people are put in can influence their behavior- students
made prison guards abused their power/ Central route to persuasion – focusing on
the important message (safety rating of car) / Peripheral route to persuasion –
focusing on the outside factors of the message (the celebrity advertising the car)/
Mere exposure effect - the more constant exposure to a stimulus the more will like

a. Remember: “I will focus on the car (centrally) in front of me, but it is hard not to notice the good looking salesperson off to the side (peripheral) selling me the car”
b. Remember- you may have to hear a song several times before you actually like the song- more exposure

7. Cognitive dissonance – discomfort that arises when action does not match beliefs or when two thoughts conflict with each other often reduced through making excuses or rationalization instead of admitting one is wrong or sorry
   a. Remember: Two thoughts (cognitions) that are very distant from each other- one I am a great student- the other I cheat on every test

8. Conformity (Solomon Asch study – 75% of people conformed or gave the same answer as the rest of the group even when they knew the rest of the group was wrong in the measurement of 3 lines which were told by Asch to give incorrect responses called the confederates) often based on normative social influence-conforming because of the desire to fit in with the norms or actions of others- don’t want disapproval/ or information social influence- conforming because the person is seen as an expert like a golf pro

9. Obedience (Stanley Milgram’s shocking experiment; 65% of subjects delivered most lethal shock; said to be result of listening to authority figure) – change in behavior due to request of authority figure/ Teacher was the one being studied to see if would follow orders the experimenter or authority figure- student did not get shocked only teacher

10. Social norm – unwritten rules that guide behavior (face forward in an elevator)

11. Changing attitudes or behavior: Foot-in-the-door technique (FITD) – compliance to small request leads to compliance to larger request / Door-in-the-face technique (DITF) – larger request (often denied), followed by smaller request (often accepted)

12. Aggression – any act that is intended to cause harm to another

13. Altruism – helping another because you are genuinely concerned for persons welfare / Reciprocal altruism – helping another and expecting to be repaid in the future/ Bystander effect – presence of others inhibits or prevents a person from assisting another also called diffusion of responsibility by providing a good excuse / Bibb Latane and John Darley’s experimented altruism which was based on Kitty Gevone murder and the fact that no one helped when she was attacked
   a. Remember: the more people you stand BY(stander) the less you will do

14. Deindividuation – sense of anonymity due to presence of others- loss of who you are when others are present- doing dumb things when others are present
   a. Remember: A decrease in the way you behave leads to deindividuation

15. Social facilitation – performance increases due to presence of others / Social inhibition – performance decreases due to presence of others / Social loafing – performance decreases because a person feels others will pick up the slack

16. Group polarization – opinion strengthened due to hearing others sharing same opinion like at a protest rally / Groupthink – group unity is most important;
dissenters are not listened to for the sake of maintaining cohesiveness - keeping your mouth shut so not to upset the evening

a. **Remember: Polarized means to become stronger - group polarization**
b. **Remember: “I THINK of the GROUP so I will keep my mouth shut not to upset the group” - groupthink**

17. **Prejudice** - unjustified hate of others / **Stereotype** - generalized belief about people / **Discrimination** - behavior based on prejudice behavior / **Categorization** - based on stereotypes / Muzafer Sherif - Robber’s Cave - groups could not get along - only were able to when worked together to accomplish common task - like fixing the water supply / **In-group bias** - group you belong to and think is the best / **Out-group homogeneity effect** - birds of a feather flock together - everyone in outside group is the same / **Ethnocentrism** - belief one’s culture is superior to others

a. **Remember: Muzafer was the Sheriff who busted people being prejudice**
b. **Remember: MY (I-n) group is the best the rest stay OUT of MY group**

18. **Scapegoat theory** - blaming others for feeling bad - prejudice behavior

19. **Leadership**: task oriented - leaders who keep people on task / person oriented - people that solve problem among people and provide a better working environment

20. **Zero sum game** - someone loses while someone wins / **Prisoner dilemma** - working together to achieve common goal - like in the Robbers Cave situation