AP Psychology Midterm Study Supplements

UNIT I: PSYCHOLOGY'S HISTORY AND APPROACHES

Psychology's Approaches

Approach	Focus
Biological	How the body and brain enable emotions, memories, and sensory experiences; how genes combine with environment to influence individual differences
Evolutionary	How the natural selection of traits promoted the survival of genes
Psychodynamic	How behavior springs from unconscious drives and conflicts

Psychology's Approaches

Approach	Focus
Behavioral	How we learn observable responses
Cognitive	How we encode, process, store, and retrieve information
Humanistic	How we meet our needs for love and acceptance and achieve self-fulfillment
Social-cultural	How behavior and thinking vary across situations and cultures

Comparison of a Sample of Major Psychotherapies

Therapy	Assumed Problem	Therapy Aims	Method
Psychodynamic	Unconscious forces and childhood experiences	Reduced anxiety through self-insight	Analysis and interpretation
Client-centered	Barriers to self-understanding and self-acceptance	Personal growth through self-insight	Active listening and unconditional positive regard
Behavior	Maladaptive behaviors	Extinction of maladaptive behaviors, and relearning of more adaptive behaviors	Counterconditioning, exposure, desensitization, aversive conditioning, and operant conditioning
Cognitive	Negative, self-defeating thinking	Healthier thinking and self-talk	Reveal and reverse self-blaming
Family	Stressful relationships	Relationship healing	Understanding family social system; exploring roles; improving communication

Approaches to Psychology

Nature ⟷ Nurture

Biological Approach
Focus on genetic, hormonal, and neurochemical explanations of behavior.

Psychoanalysis
Innate drives of sex and aggression (nature). Social upbringing during childhood (nurture).

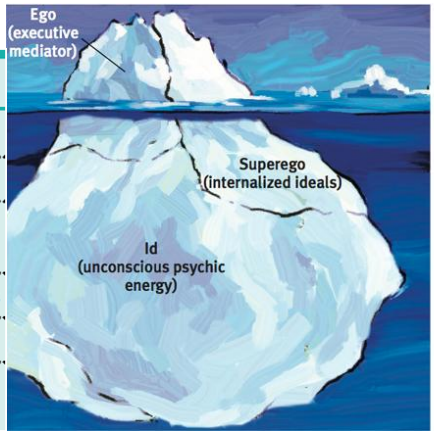
Cognitive Psychology
Innate mental structures such as schemas, perception and memory and constantly changed by the environment.

Humanism
Maslow emphasized basic physical needs. Society influences a person's self concept.

Behaviorism
All behavior is learned from the environment through conditioning.

Freud's Psychosexual Stages

Stage	Focus
Oral (0–18 months)	Pleasure centers on the mouth—sucking, biting, chewing
Anal (18–36 months)	Pleasure focuses on bowel and bladder elimination; coping with demands for control
Phallic (3–6 years)	Pleasure zone is the genitals; coping with incestuous sexual feelings
Latency (6 to puberty)	Dormant sexual feelings
Genital (puberty on)	Maturation of sexual interests



Conscious mind

Preconscious (outside awareness but accessible)

Unconscious mind

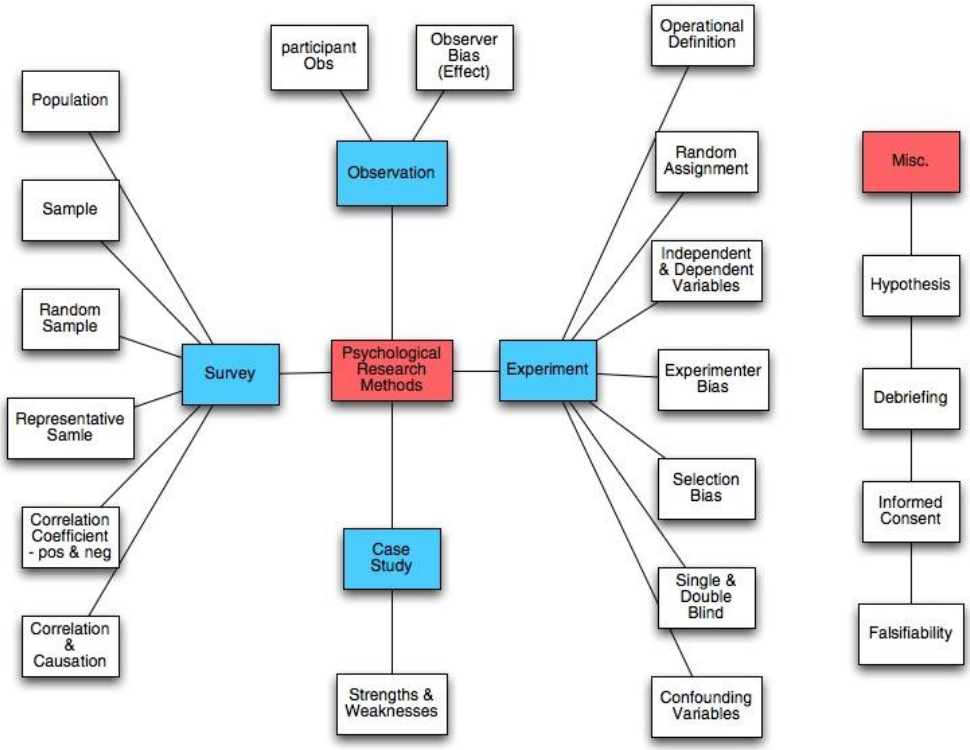
Freud's Defense Mechanisms

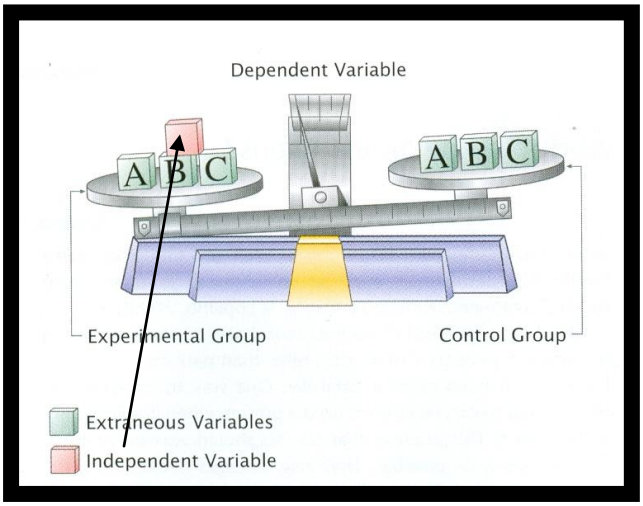
MECHANISM	DESCRIPTION	EXAMPLES
1. denial	Failure to accept reality	Refusing to accept the death of a close friend or relative; refusing to accept that your relationship with a romantic friend is over
2. displacement	The transfer of negative feelings about someone to someone else	You are very angry with your mother and you take out that anger in dealing with your sister or best friend
3. projection	Putting (projecting) negative feelings on someone else	Blaming your teacher for failing a test when you did not study
4. rationalization	Justifying irrational behavior	Not doing your homework one evening because you feel you've spent too much of your time on schoolwork
5. reaction formation	Expressing emotions that are the exact opposite of what you feel	Acting like a clown in a group to hide your shyness
6. regression	Using childlike ways of expressing emotions like anger or disappointment	Throwing a tantrum when you don't get to watch your favorite TV program
7. repression	Blocking out unpleasant memories	Forgetting when you were in the hospital
8. sublimation	Redirecting bad or unacceptable behavior into positive behavior	Channeling your aggression into an athletic sport where aggressive behavior is acceptable

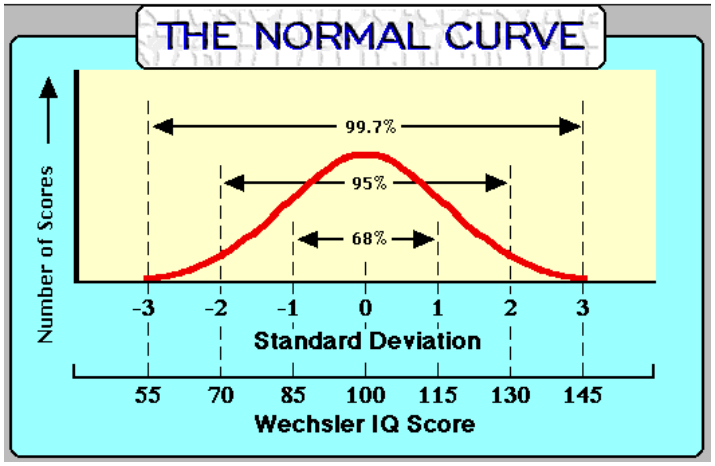
UNIT II: RESEARCH METHODS

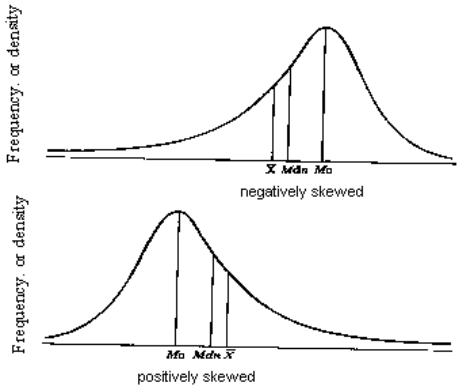
Comparing Research Methods

Research Method	Basic Purpose	How Conducted	What Is Manipulated	Strengths	Weaknesses
Descriptive	To observe and record behavior	Case studies, surveys, or naturalistic observations	Nothing	Case studies require only one participant; surveys may be done fairly quickly and inexpensively (compared to experiments); naturalistic observations may be done when it is not ethical to manipulate variables.	No control of variables; single cases may be misleading
Correlational	To detect naturally occurring relationships; to assess how well one variable predicts another	Compute statistical association, sometimes among survey responses	Nothing	Works with large groups of data, and may be used in situations where an experiment would not be ethical or possible	Does not specify cause and effect
Experimental	To explore cause and effect	Manipulate one or more factors; use random assignment	The independent variable(s)	Specifies cause and effect, and variables are controlled	Sometimes not feasible; results may not generalize to other contexts; not ethical to manipulate certain variables





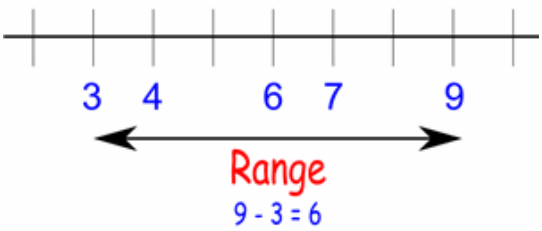




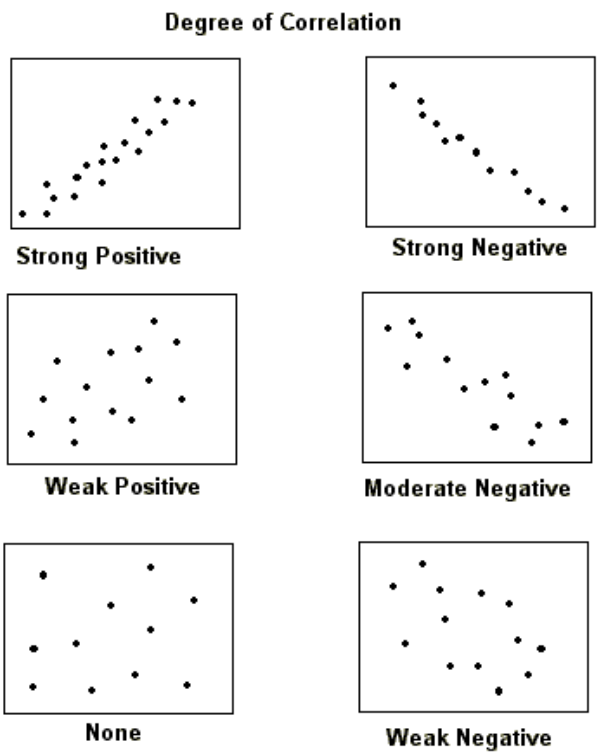
$$\text{Mean} = \frac{\text{sum of all values}}{\text{total number of values}}$$

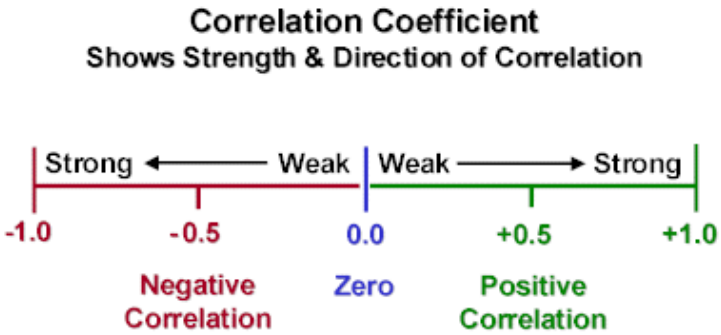
Median = middle value (when the data are arranged in order)

Mode = most common value

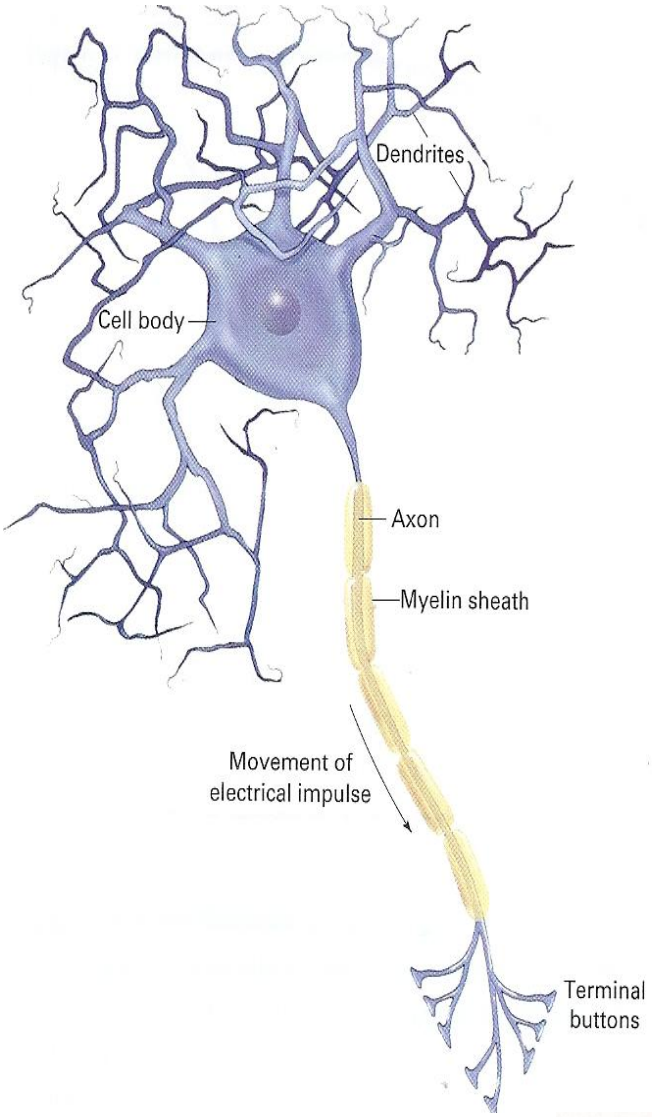


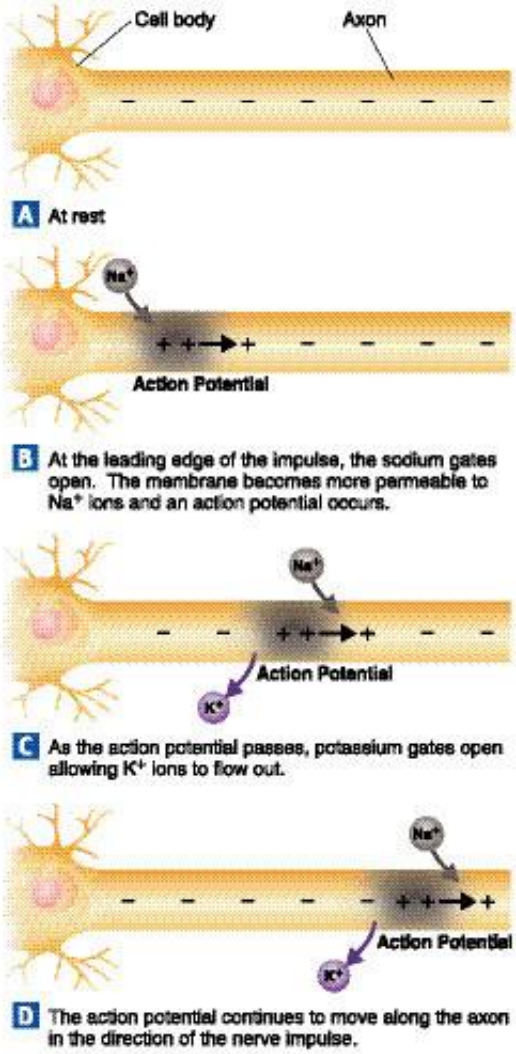
Standard Deviation is a measure of variation (or variability) that indicates the typical distance between the scores of a distribution and the mean. *Looking at an example will help us make sense of this.Assume a professor is interested in the satisfaction of students in her psychology class. She decides to survey the students by asking them to rate the class from one to five. From the surveys, she calculates the average score to be three. From this she can assume that people's satisfaction was average. Wanting to know more she decides to calculate the standard deviation and finds it to be equal to two--meaning, the amount of variability between the numbers was 2. This means that most scores were either a one or a five (thus producing the average of three), showing that students were either very satisfied with her class or very dissatisfied with her class (they gave ratings of 1 or 5 most frequently). By obtaining a measure of variability, she was able to understand more about how people felt with the class than she would of with just an average score. This is one of the reasons why standard deviation (and variability) is so important.*

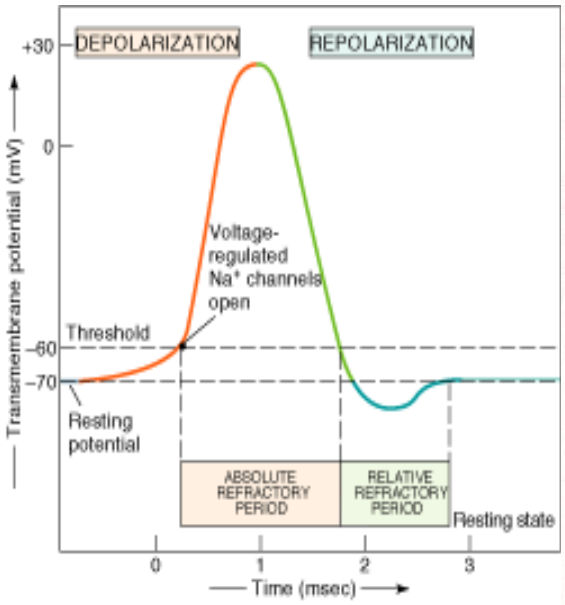


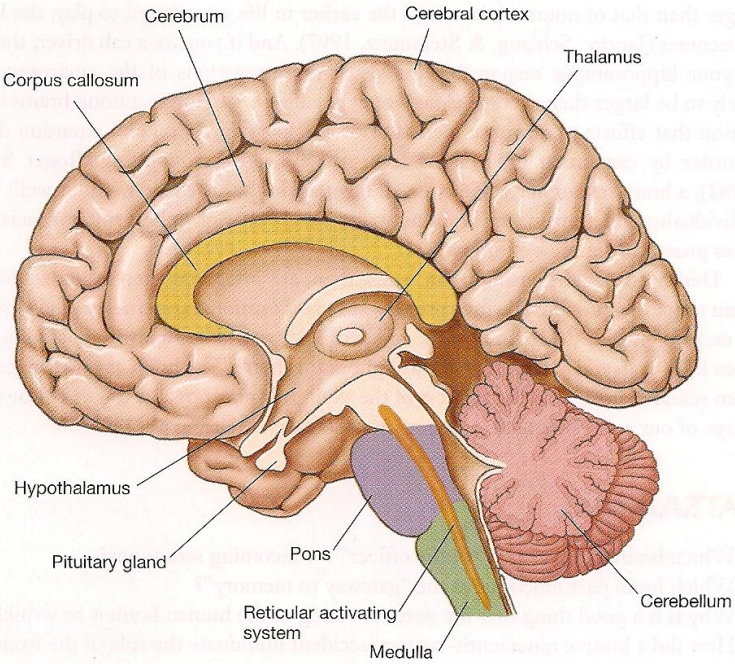


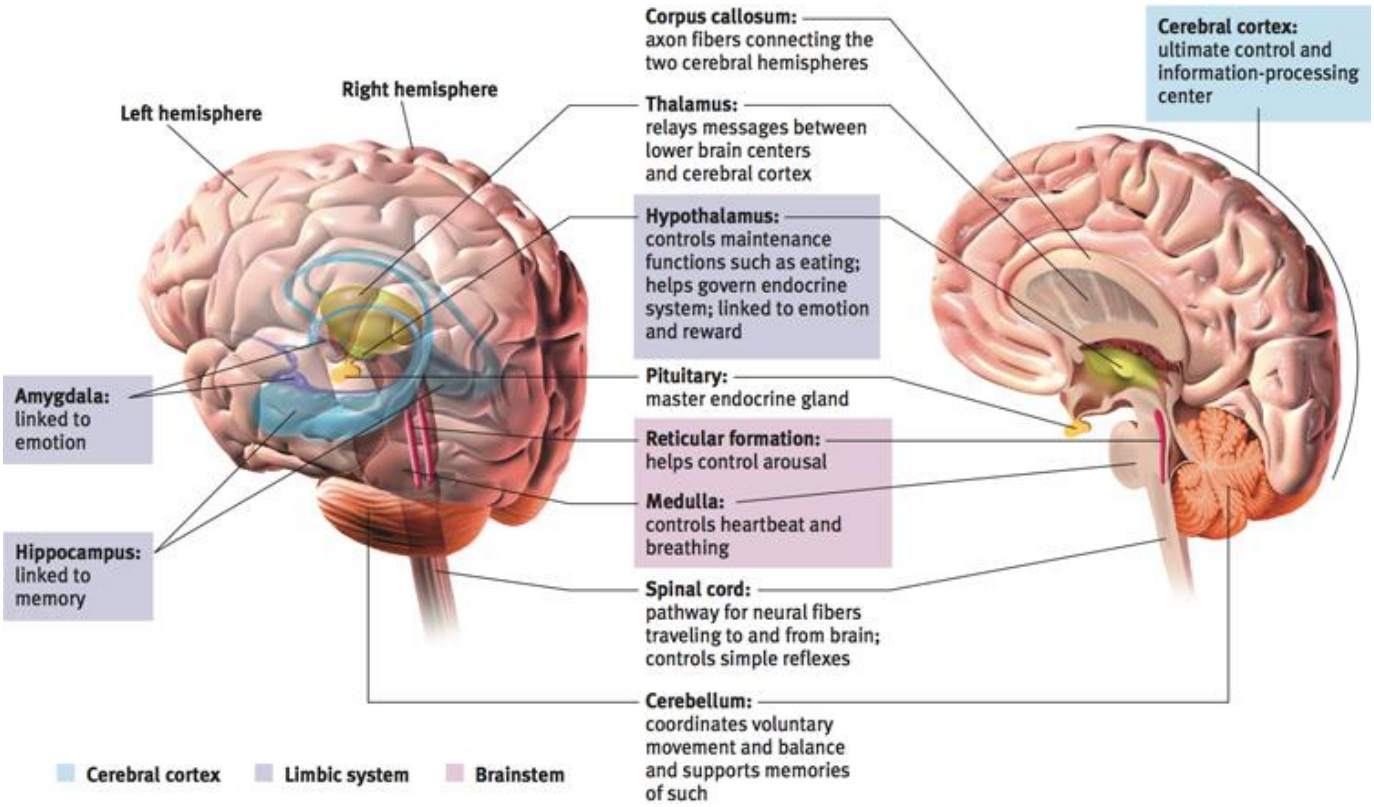
UNIT 3: BIOLOGICAL BASES OF BEHAVIOR

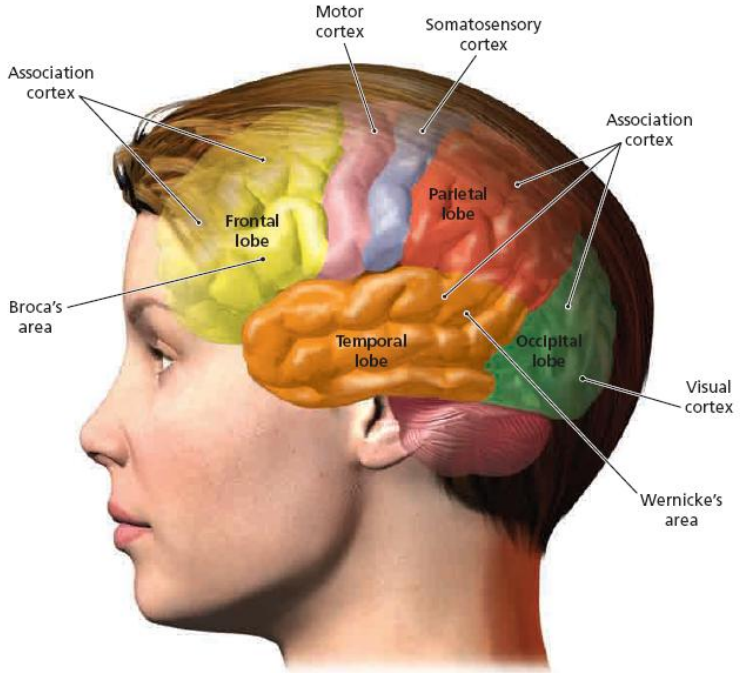


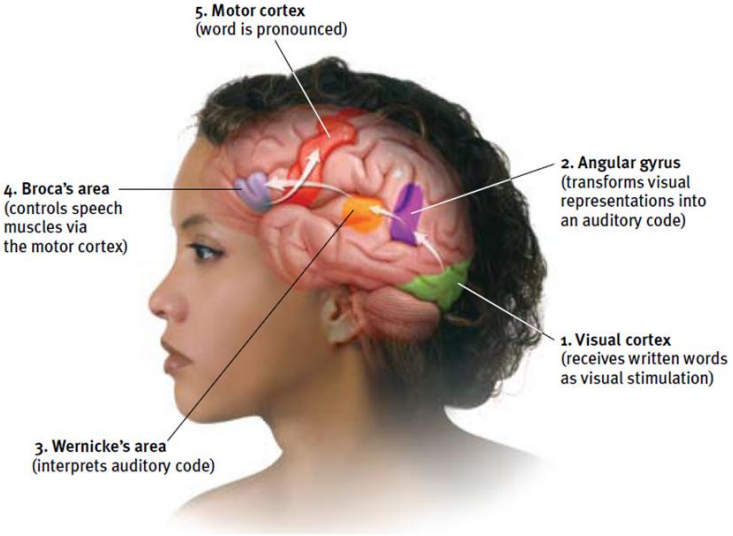







Left hemisphere
Right hemisphere
Corpus callosum: axon fibers connecting the two cerebral hemispheres
Cerebral cortex: ultimate control and information-processing center
Thalamus: relays messages between lower brain centers and cerebral cortex
Hypothalamus: controls maintenance functions such as eating; helps govern endocrine system; linked to emotion and reward
Amygdala: linked to emotion
Pituitary: master endocrine gland
Reticular formation: helps control arousal
Medulla: controls heartbeat and breathing
Hippocampus: linked to memory
Spinal cord: pathway for neural fibers traveling to and from brain; controls simple reflexes
Cerebellum: coordinates voluntary movement and balance and supports memories of such
Cerebral cortex
Limbic system
Brainstem


Motor cortex
Somatosensory cortex
Association cortex
Association cortex
Frontal lobe
Parietal lobe
Broca's area
Temporal lobe
Occipital lobe
Visual cortex
Wernicke's area


5. Motor cortex (word is pronounced)
2. Angular gyrus (transforms visual representations into an auditory code)
4. Broca's area (controls speech muscles via the motor cortex)
1. Visual cortex (receives written words as visual stimulation)
3. Wernicke's area (interprets auditory code)

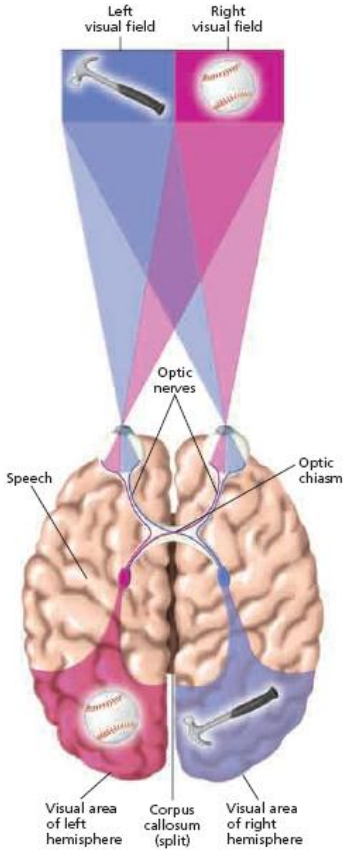
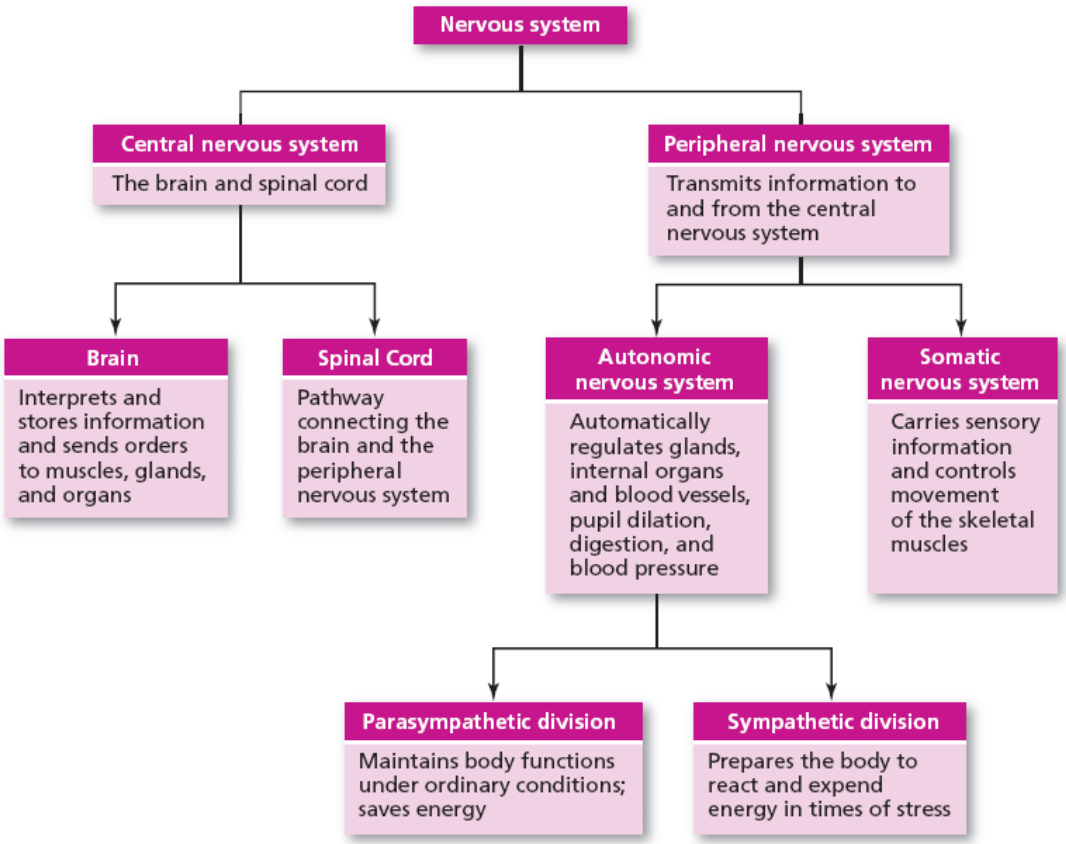
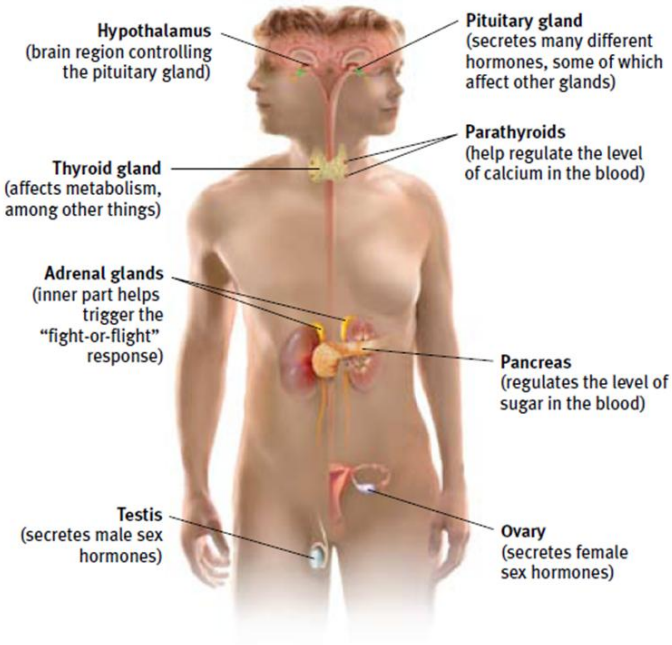
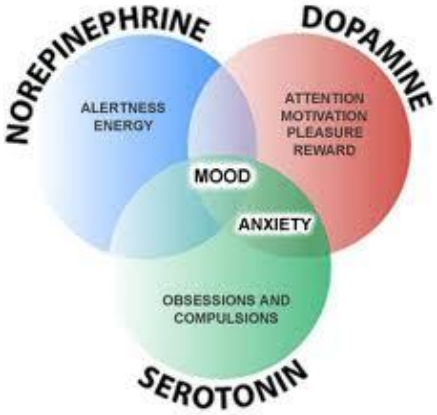


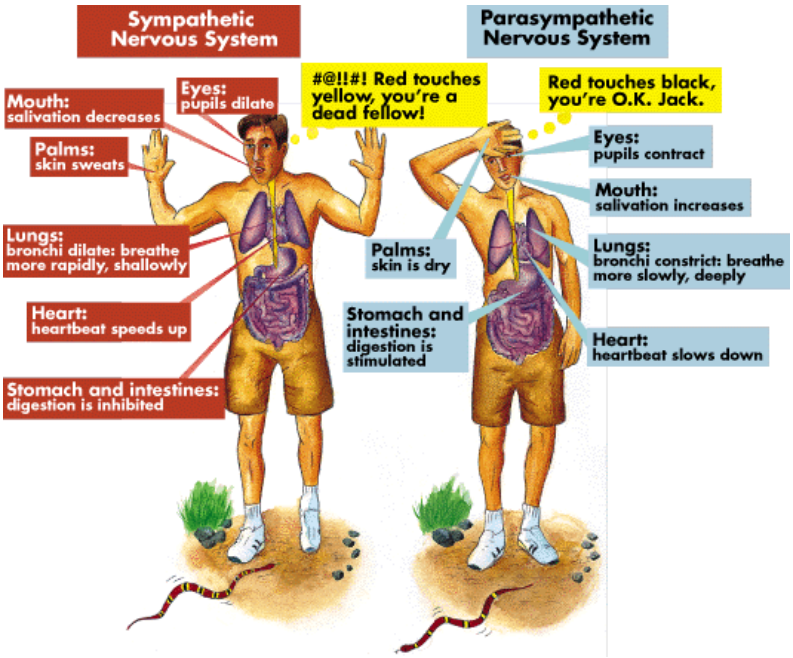
Table 2.2 Specialization of the Two Hemispheres

LEFT HEMISPHERE	RIGHT HEMISPHERE
Controls the right hand	Controls the left hand
Spoken language	Nonverbal
Written language	Visual-spatial perception
Mathematical calculations	Music and artistic processing
Logical thought processes	Emotional thought and recognition
Analysis of detail	Processes the whole
Reading	Pattern recognition
	Facial recognition



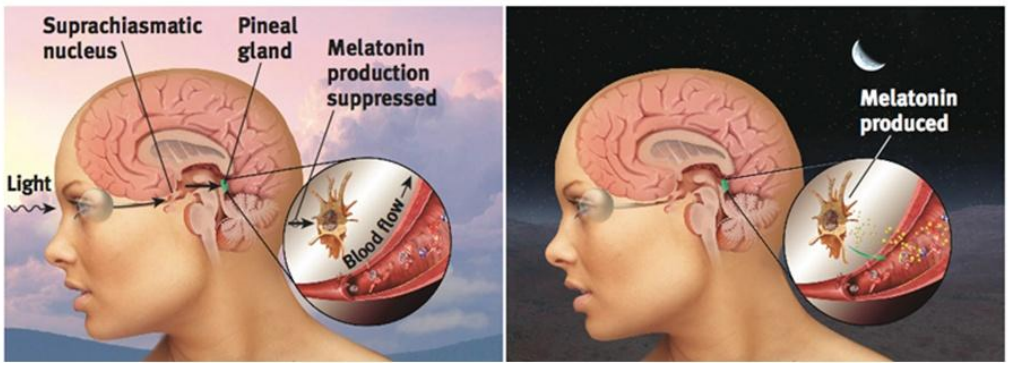

Hypothalamus
(brain region controlling the pituitary gland)
Pituitary gland
(secretes many different hormones, some of which affect other glands)
Parathyroids
(help regulate the level of calcium in the blood)
Thyroid gland
(affects metabolism, among other things)
Adrenal glands
(inner part helps trigger the "fight-or-flight" response)
Pancreas
(regulates the level of sugar in the blood)
Testis
(secretes male sex hormones)
Ovary
(secretes female sex hormones)

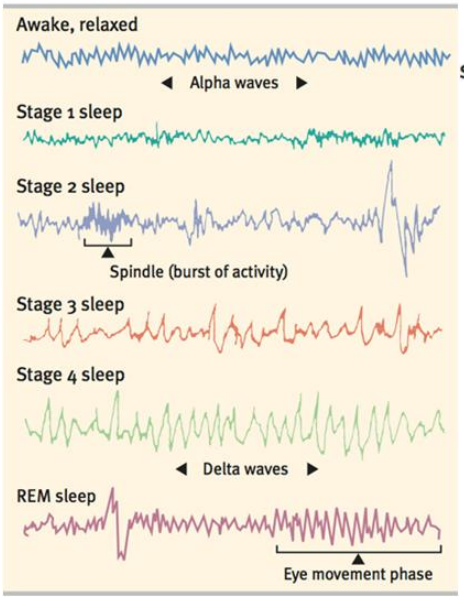

NOREPINEPHRINE
DOPAMINE
SEROTONIN
ALERTNESS
ENERGY
ATTENTION
MOTIVATION
PLEASURE
REWARD
MOOD
ANXIETY
OBSESSIONS AND
COMPULSIONS

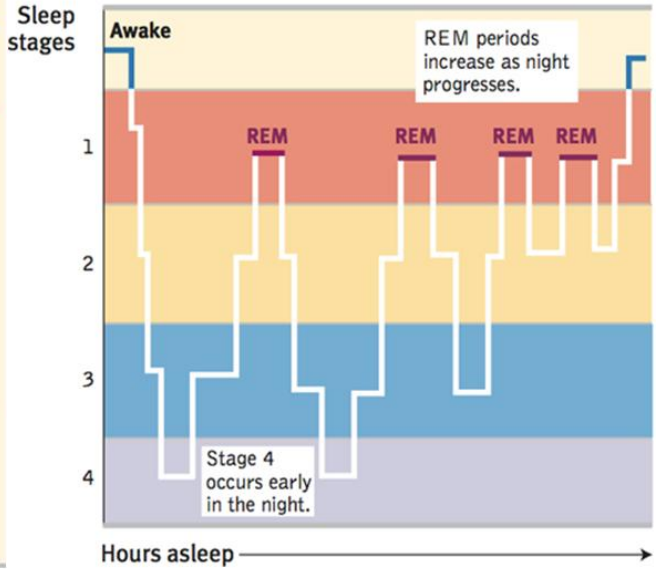

Sympathetic Nervous System
Parasympathetic Nervous System
#@!!#! Red touches yellow, you're a dead fellow!
Red touches black, you're O.K. Jack.
Mouth: salivation decreases
Eyes: pupils dilate
Palms: skin sweats
Lungs: bronchi dilate: breathe more rapidly, shallowly
Heart: heartbeat speeds up
Stomach and intestines: digestion is inhibited
Eyes: pupils contract
Mouth: salivation increases
Palms: skin is dry
Lungs: bronchi constrict: breathe more slowly, deeply
Stomach and intestines: digestion is stimulated
Heart: heartbeat slows down

GABA
Glutamate

UNIT V: STATES OF CONSCIOUSNESS







Dream Theories

Theory	Explanation
Freud's wish-fulfillment	Dreams provide a "psychic safety valve"—expressing otherwise unacceptable feelings; contain manifest (remembered) content and a deeper layer of latent content—a hidden meaning.
Information-processing	Dreams help us sort out the day's events and consolidate our memories.
Physiological function	Regular brain stimulation from REM sleep may help develop and preserve neural pathways.
Activation-synthesis	REM sleep triggers neural activity that evokes random visual memories, which our sleeping brain weaves into stories.
Cognitive development	Dream content reflects dreamers' cognitive development—their knowledge and understanding.

Table 4.6 How Drugs Affect Consciousness

DRUG CLASSIFICATION	COMMON NAME	MAIN EFFECT	ADVERSE EFFECTS
Depressants			
Alcohol	Beer, wine, spirits	Relaxation	Alcoholism, health problems, depression, increased risk of accidents, death
Barbiturates (tranquilizers)	Nembutal, Seconal		Addiction, brain damage, death
Stimulants			
Amphetamines	Methamphetamine, speed, Ritalin, Dexedrine	Stimulation, excitement	Risk of addiction, stroke, fatal heart problems, psychosis
Cocaine	Cocaine, crack		Risk of addiction, stroke, fatal heart problems, psychosis
Nicotine	Tobacco		Addiction, cancer
Caffeine	Coffee, tea		Caffeinism, high blood pressure
Narcotics (Opiates)	Morphine, heroin	Euphoria	Addiction, death
Hallucinogens	Marijuana, hashish, LSD, Ecstasy	Distorted consciousness, altered perception	Possible permanent memory problems, bad "trips," suicide, overdose, and death