

Psychology is the scientific study of behavior and mental processes

Methods of study in psychology

- Case Studies
 - o Case studies are simply stories that illustrate a point
 - Ex: Why a child is hostile and aggressive? – could be hostile and aggressive tv shows they watch or could be parents or could just be the child is hostile and aggressive
 - o Strengths
 - Great for generating hypothesis
 - o Weaknesses
 - We cannot generalize the findings to other people
 - We cannot determine cause and effect
 - Observers sometimes lie
- Correlational Studies
 - o What are correlational studies
 - Two variables measures in many people; the statistic
 - One goes up while other goes down; both go up; both go down due to one another
 - o Strengths
 - We can generalize the findings
 - We know how strong the relationship is
 - o Weakness
 - We cannot determine cause and effect
 - Problem with direction of relationship
 - Problem with third variables
 - o Ex: hypothesis- correlation between amount of times people check facebook and depression
- True Experiments

- o Characteristics of an experiment
 - Participants are randomly assigned to experimental and control conditions
 - The *independent variable* is manipulated in the experiment
- o Strengths
 - We can determine cause and effect
- o Weakness
 - *Confounds* (third variable) may creep into experiments
 - Ethical problems may arise - ex: teacher will give smart kids more attention than not smart therefor testing that would be unethical ← not as much of problem anymore bc experiments must be approved or else no money
- Other research strategies
 - o Longitudinal and cross sectional studies
 - Longitudinal - following and studying same people over time - very long
 - Cross sectional - studying people from every age group
 - o Studies of families and genes
 - o Survey research

Organization of the Nervous System

- Central Nervous system - all materials in your brain
- Peripheral Nervous System- nerve tracks that leave brain and are in other parts of your body
 - o Somatic Division - responds to your external environment and consists of nerves connected to sensory receptors and skeletal muscle. It permits voluntary actions
 - o Autonomic Division - It permits involuntary functioning of blood, organs, glands, etc.
 - Sympathetic Branch - gets you nervous or excited
 - Parasympathetic branch - calms you down and allows you to receive equilibrium again

Brain Structures and Behavior

- Layers of the brain and localization of functions
 - o Brain Stem
 - Medulla - power plant for the brain → provides all energy → carries electrical activity to the brain → controls bawl movements, perspiration, coughing etc.
 - Pons - a night time brain, triggers dreams
 - Cerebellum - controls muscle movements → when people start slurring words its bc malfunction in cerebellum (drunken incapacibilities)
 - o 4 lobes of brain
 - frontal lobe - integrate all information, serious thinking
 - Temporal lobe - process sounds, language
 - Occipital lobe - vision
 - Parietal lobe - controls motor skills
 - o Ventricles - Large holes in the brain → trash can for brain → drains dead cells and excess materials.
 - o Right side of brain controls left side of body and vice versa
 - Corpusculosi - enables you to use both sides of your brain → woman have 20x larger than men - makes women faster and more efficient thinkers
 - Left hemisphere is responsible for language
 - Right hemisphere is responsible for emotion and spacial understanding, recognition (places, faces)