

CHAPTER: 8 CONSCIOUSNESS • LECTURE NOTES

Consciousness

- Attention
 - Active cognitive processing of a limited amount of information, selected from the vast amount of information available to the senses
 - Selective Attention
 - Tracking one message and ignoring another
- The Cocktail Party Phenomenon
 - Research of E. Colin Cherry
 - We have the ability to follow one conversatio despite distractions of other conversations
 - Shadowing
- Mindfulness
 - Paying deliberate attention to immediate situation at hand
 - Mindlessness
 - Attention is generally a purposeful application of our consciousness, but it also operates automatically and at different levels
- Stroop Effect-reading is not easily controlled.
- Other theories that explain attention
 - Filter Theories
 - Donald Broadbent
 - We filter information right after it enters into sensory memory
 - Disproved later when research showed that there is certain information that we can pick up even if not attending to it
 - Your own name
 - Attentional Resource Theories
 - We have a fixed amount of attention that can be allocated to what the task requires
 - Multiple pools
- Levels of Consciousness
 - Preconscious
 - Contains information that could easily become conscious but is not continuously available
 - Tip of the tongue
 - Most common experience of consciousness
 - Subliminal perception
 - Blindsight
- Subconscious
 - Information is not easily accessible

- According to Freud, information that is too anxiety provoking is repressed – kept in the unconscious.
 - Repression keeps us from being distressed by the information
 - Still affects our behaviors
- Near-Death Experiences
 - During this time, people undergo unusual psychological experiences
 - Feelings of peace or intense joy
 - Some feel that they have left their bodies
 - Some speak of reunions with friends and family
 - These experience are more common for those who are ill, least common for those who commit suicide, and between for accident victims
 - Possible causes
 - Random firing of the dying brain
 - Lack of oxygen
 - Insufficient blood in occipital lobe can lead to “tunnel effect”
- Altered States of Consciousness
 - All altered states of consciousness share certain characteristics
 - Cognitive process tend to be more shallow
 - Perceptions of the self or the world are usually different than when awake
 - Normal inhibitions or control over behavior weaken
- Sleep
 - Reticular formation
 - Area of the brain responsible for sleep cycle
 - No neurotransmitter responsible for this
 - During sleep, people become RELATIVELY but not TOTALLY unaware of outside stimuli
 - Not clear why we sleep
 - But good sleep is a predictor of longevity
- Why we sleep
 - Preservation and Protection
 - One view is that sleep serves an adaptive function
 - Evidence:
 - Sleep patterns vary depending on how much time the animal strives to find food.
 - Sleep patterns vary depending on how well animals can hide themselves when they sleep
 - Restoration
 - A second view is that we sleep to restore depleted resources and dissipate accumulated waste

- Sleep has chemical causes
- Circadian Rhythms
 - Biological Cycles that last about 24 hours in humans
 - We tend to sleep about 8 hours a day
 - Dogs like to sleep around 16 hours per day
 - The desert spadefoot toad sleeps for about 9 months
 - Snails can sleep for up to 3 years
 - Bullfrogs never sleep
 - Despite cultural differences, most people sleep and wake with the cycle of sunlight
- Sleep Deprivation
 - 1 sleepless night: Participants appear cheerful and relaxed
 - 2nd sleepless night: Severe exhaustion by 3:30 AM, if given long test problems, they tend to fall asleep but deny it,
 - 3 sleepless nights: Participants are tense and irritable mood swings
 - Microsleep
 - Occurs by 3rd night
 - People stop what they are doing and stare into space
 - Brain waves resemble those in sleep
 - Visual illusions and hallucinations can occur
 - Auditory hallucinations are most common
 - After 4 nights: Participants become paranoid
- Stage of Sleep
 - Awake
 - Alpha waves are active
 - Stage 1 sleep
 - Alpha waves become smaller and more rapid
 - If awoken, feels like thoughts didn't make much sense
 - Stage 2
 - Spend more than half of our sleep in this stage
 - Muscle tension is much lower
 - Stage 3
 - Delta waves
 - Large and slower than alpha waves
 - Experience delta waves 20-50% of the time
 - Stage 4
 - Delta waves take up more than 50% of this stage
- Stages of Sleep Continued
 - The first four stages are known as N-REM sleep