VII. CONSCIOUSNESS

A. FUNCTIONS OF CONSCIOUSNESS
1. Consciousness monitors
   - self
   - environment
   - consciousness monitors to prevent and solve problems; works to direct behavior in adaptive behavior
2. Consciousness regulates thought and behavior to attain goals

B. NATURE OF CONSCIOUSNESS
1. The subjective awareness of mental events.
   - thoughts
   - feelings
   - perceptions
2. States of consciousness
   - different ways of orienting to internal and external events, such as awake states and sleep states

C. ATTENTION AND SELECTION
1. Attention
   - Process of focusing consciousness awareness
     - works like a filtering process, so only important information passes
     - has three functions
       ▪ Maintaining alertness
       ▪ Orienting toward important information
       ▪ Controlling behavior and contents of consciousness
2. Selection
   - deciding where to focus
     • external stimuli
     • internal motivation

D. DIVIDED ATTENTION
   • Process by which attention is split between two or more sets of stimuli
     - Example: Driving while talking on the phone
   • Divided attention occurs by either ignoring one stimuli, or rapidly shifting between one task and the other

E. MINDLESSNESS
   • “Attention not paid precisely to those substantive elements that are relevant for the successful resolution of the situation.”
     - Ellen Langer
   • Three types
     - Categorical thinking (stereotyping)
     - Act from a single perspective (Rigid adherence)
     - Automatic behaviors or habits

F. PSYCHODYNAMIC UNCONSCIOUS
   Freud’s model includes:
   • Conscious mental processes
     - Subjective awareness of stimuli, feelings, ideas
   • Preconscious mental processes
     - Not presently conscious but could be readily brought into consciousness
   • Unconscious mental processes
     - Inaccessible to consciousness because too anxiety provoking
Freud thought repression was a censor of conscious thought
- Dynamically unconscious: thoughts are kept in unconscious to avoid anxiety
- Keeping thoughts out of consciousness requires cognitive energy
- People work toward unconscious motives

G. LOCATION OF CONSCIOUSNESS
1. Consciousness involves a network of neurons distributed throughout the brain.
2. Damage to hindbrain and midbrain structures, especially the reticular formation, can lead to unconsciousness
3. Conscious awareness (working memory) is distributed across cerebral cortex, especially reticular formation and thalamus

H. SLEEPING AND DREAMING
1. Sleep involves a lack of conscious awareness
2. We differ on the amount of sleep we need
   a. Average range is 6-8 hours per night
3. Circadian rhythms – biological cycle that evolved around daily cycles of light and dark and are controlled by the hypothalamus

4. Sleep Deprivation and Disorders
   a. Possible roles for sleep include:
      - Conserve energy
- Restorative function
- Consolidating memory
- Resolve emotional conflicts

b. Sleep deprivation has a negative impact on the body
- Negative effect on the immune system
- Makes body more vulnerable to disease

c. Sleep disorders include:
- Insomnia
- Narcolepsy: Sleep attacks during conscious states
- Sleep Apnea: Brief periods of not breathing
- Night Terrors: Wake up with intense fear

I. Stages of Sleep

Regular and predictable stages of sleep involving brain waves, measured with EEG monitors

Stage I – Brief amount of time, usually only a few minutes; Beta waves decrease and alpha waves emerge
Stage II – Sleep spindles and K- complexes show up; sleep deepens and alpha waves disappear

Stage III – Large, slow rhythmic delta waves show up
Stage IV – More than 50% of brain activity is delta waves

J. REM AND NON-REM SLEEP

1. Rapid Eye Movement (REM) Sleep also called paradoxical stage of sleep
   - Autonomic activity: blood pressure, heart rate, and breathing increase
   - REM pattern resembles being awake
   - Muscle movement is mostly not possible
   - Complex dreaming occurs in REM Sleep

2. The sleep cycle repeats over the course of a sleep cycle
3. Stage I when dreaming = REM sleep
4. Stages II, III, IV = Non-REM sleep