

## Feb. 4<sup>th</sup> 2013:

- Consciousness- awareness of one's surroundings and of what's on one's mind (our subjective experience)
- Two dimensions of consciousness
- Wakefulness- degree of alertness reflecting whether a person is awake or asleep (reticular formation)
- Awareness- monitoring of information from the environment and one's own thoughts
- Minimal consciousness- lack of awareness or wakefulness and inability to communicate but able to show signs of intentional behavior
- Coma- state of consciousness in which the eyes are closed and the person is unresponsive and unarousable
- Vegetative state- state of minimal consciousness in which the eyes may be open , but the person is otherwise unresponsive (consciousness but no awareness) (Terry Shivo)
- Moderate consciousness- mental activity that occurs somewhere between minimal consciousness and full consciousness (day dreaming, being drowsy)
- Freud's preconscious- material that is potentially accessible to the conscious mind but not currently available
- Tip of the tongue phenomenon- knowing that we know something to say but being unable to articulate it
- Full consciousness- periods when we are more alert and present than normal
- Flow- state of involvement in which one loses a sense of time
- Mindfulness- heightened awareness of the present moment (includes all thoughts, feelings, and sensations)
- Attention- limited capacity to process information that is under conscious control
- Three types:
- Selective attention- ability to focus awareness on specific features in the environment while ignoring others (Cocktail party effect- ability to filter out auditory stimuli and then refocus attention when you hear your name is called) (Inattentive blindness- inability to notice unexpected objects in our surroundings) (Perceptual load model- we do not notice potential distractors when a primary task consumes all of our attentional capacity)
- Sustained attention- ability to maintain focused awareness on one target or idea (Continuous performance test- measures sustained attention by having participants give a computer input when a letter Y appears among a sequence of other letters),
- Multitasking- the art of screwing several things up at once (Fast-task switching) (fractured attention rather than sustained) (lose time, stress, and distraction)

## February 6, 2013:

- **Meditation**- training for the conscious mind (stabilize concentration, focus attention, and enhance awareness) (higher physical and mental well-being)
- **Many techniques develop mindfulness**- (full consciousness)
- **Sleep**- a state in which our brain is active but is only partially processing information from the outside world
- **Two main features**: Perceptual wall between the conscious mind and the outside world, State can be immediately reversed
- **Circadian rhythms**- variations on physiological processes that cycle within approximately a 24 hour period (includes sleep-wake cycle)
- **Suprachiasmatic nucleus**- regulates physiological activity on a daily basis (internal time keeper)
- **Pineal gland**- regulates the release of melatonin to induce relaxation and drowsiness
- **Rapid eye movement (REM)**- quick movements of the eye that occur during sleep
- **Non REM**- slower and fewer movements of the eye during sleep
- **Beta Waves**- rapid, low energy wave pattern in the brain while awake (lots of waves)
- **Alpha Waves**- slower, higher energy waves than beta (when relaxed and drowsy) (lots of waves not as much as beta)
- **Theta Waves**- slower, lower energy waves than alpha waves (during stage 1 sleep) (less waves)
- **Delta Waves**- higher energy than theta waves (during stage 3 sleep) (few waves)
- **Sleeping**- amount of time spent in REM and non-REM, as well as total hours of sleep needed, changes over our lifetime (newborns spend more time in REM and typically sleep for only a few hours at a time) (we need 8 hours of REM and 8 hours of non-REM per day)

### **Three major restorative functions:**

- **Neural growth**- deprivation= fewer neurons are developed, some neurons are lost, and connectivity is decreased
- **Memory consolidation**- hippocampus activates as though we are learning and rehearsing while we are sleeping (napping after learning new information may help, too)
- **Protection against cellular damage**- cells are damaged by our metabolism, metabolism is slowed during sleep
- **Sleep deprivation**- 40% of adults in U.S. suffer, affects accidents and mental health
- **Sleep debt**- the amount of sleep our brains owe our bodies, most don't "pay back"
- **Approximately 20% of the US has some type of sleep disorder**
- **Insomnia**- a sleep difficulty characterized by difficulty falling and staying asleep (do not feel rested in the morning)

## February 8, 2013:

- Sleep Walking- sleep difficulty characterized by activities occurring during non-REM sleep that usually occur when one is awake
- Narcolepsy- sleep disorder characterized by excessive daytime sleepiness (Cataplexy- weakness of facial and limb muscles) (People falling asleep during inopportune times)
- Hypersomnia- sleep difficulty characterized by sleeping more than 10 hours a day for 2 weeks or more (urge to nap at inappropriate times)
- Night Terrors- state that occurs when a person walks around, speaks incoherently, and ultimately awakens from sleep in fear (occur during non-REM)
- Dreams- images, thoughts, and feelings experienced during sleep (based on loose associations, hard to recall, occur during REM)

### Freud's Psychoanalytic Theory:

- Dreams are "the royal road to the unconscious"
- Distortion of impulses, thoughts, feelings, and drives from our waking world that are being released through the sleeping mind
- Manifest level- what's happening in the dream
- Latent level- what the dream means

### Cognitive Theory:

- Dreams are not different than every day thinking
- Lucid dreaming (aware that one is dreaming)

### Mind altering drugs:

- Psychoactive drugs- naturally occurring or synthesized substances that reliably produce qualitative changes in conscious experience
- Physical dependence- use of a drug to maintain normal function and cope with challenges in daily life
- Psychological dependence- compulsive use of a drug to alleviate boredom, cope, and regulate mood
- Addiction- condition that results from the habitual use or physical and psychological dependence on a substance