LECTURE NOTES FOR SECTION 2 OF CLASS BEGIN HERE

Consciousness

- Our Ongoing Awareness of Our Thoughts and Feelings

Conscious versus Unconscious Tasks

- Difference: require conscious attention or not
- Exp: learning to drive a car
- Can do many unconscious (as long as they don't interfere)
- More than one conscious is hard
- Stroop task

Why does stroop effect happen?

- Activation of the names of words happens unconsciously and automatically (without intent)
- Conflict between two different things which are activated

- Unconscious processes are out of our awareness
- **Thus, there are things going on in our heads that we don't know are there**

Freud

- Conscious: in the spotlight of awareness
- Preconscious: can be easily brought into awareness
- Unconscious: banned from awareness. Suppressed

Subliminal Priming

- Activating thoughts or feelings without conscious awareness
- Bargh. Old people study.
  - Aggression study
- Painting preference study

Function of Subliminal Mind

- Our brains have more to do than CNS mind can handle
  - Subliminal mind picks up slack
- Subliminal mind as pattern detector
  - Learn card game study

- Poster preference study

Altered States of Consciousness

- Sleeping
- Dreams
- Hypnosis
- Meditation
- Drugs and Alcohol

Falling Asleep

- Thoughts become hazy
- React less to external stimuli
- Muscles relax
- Body temp, heart rate, and blood pressure slowly drop
- Level of serotonin in brain increases

Sleep stages and brain waves

- **Awake**: Low-voltage, high-frequency beta waves
- **Drowsy**: Alpha waves prominent
- **Stage 1 Sleep**: Theta waves prominent
- **Stage 2 Sleep**: Sleep spindles and mixed EEG activity
- **Slow wave sleep**
  (stage 3 and stage 4 sleep)
  Progressively more delta waves (stage 4 shown)
- **REM sleep**
  Low-voltage, high-frequency waves

Stage One

- Hypongenic sleep
- Feel a gentle falling or floating
- 5-10 minutes
- Won't think you were asleep if awoken

Stage Two

- Minor noises won't wake you, but still relatively easy to awaken
- 20 minutes

Stages Three and Four

- Breathing and pulse have slowed
- Hard to awaken
- Deep Sleep
- Slow wave sleep

Stage 5

- REM (rapid eye movement) sleep
- Increase in heart rate, blood pressure, oxygen consumption (similar to waking state)
- Heightened cerebral activity
- Muscle paralysis
- Dreaming
- 20-40 minutes in early night, up to an hour later

REM sleep throughout the life span

Normal sleep cycle

- Awake, stage 1, 2, 3, 4, 3, 2, REM
- REM first occurs 90 minutes after falling asleep
- Naps best if get a full cylcle

Normal Sleep Cycle

Why do we Sleep?

- Restoration function
- Adaptive Process
- Facilitating learning

Restoration Function

- Recover from work done when animal was awake
- More exercise = more SWS
- Tired if deprived of SWS
- No REM = anxious and irritable
- "REM rebound"
- Psychosis (long term deprivation)