- Consciousness: awareness of ourselves (internal) and our environment (external)
  - Conscious processing- is sequential, slow, and voluntary
  - Unconscious processing- simultaneous, fast, and automatic

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Selective Attention

- Bombarded with information- mostly unconscious- 11,000,000 bits of info a second
- Focus consciously only on certain things- about 40 of these
  - Selective attention- focusing on conscious awareness on particular stimuli
- Mindfulness Training
  - non-religious
  - training the brain to focus on present
  - hone in selective attention
  - faster and efficient change in selective attention
- "what you think about (choose to attend to) EXPANDS"

The Body's "Clock"

- Circadian Rhythm: 24 hour biological clock
  - Controlled in the hypothalamus
- Sleep Cycles
  - About every 90 minutes (70-120) minutes we complete a sleep cycle:
    - Stage 1- characterized by fantastic images resembling hallucinations
      - Sudden jerks
    - Stage 2- About 20 minutes after Stage 1
      - most of our sleep talk, may sleep-talk
    - Stage 3- just a quick transitional stage
    - Stage 4- About 30 minutes- very hard to wake up, early in night
      - near the end of stage 4 is when children wet the beds when people sleep walk
    - REM Sleep- about an hour after you first fall asleep in stage 4, go back up through stage 3 and 2- enter REM
      - Rapid Eye Movement- eyes dart around behind your lids
      - Vivid dreaming, emotional, story-like, and hallucinatory
      - Sexual arousal (physical)
      - Relaxed muscles, brainstem blocks messages from your motor cortex
      - Hard to wake
- Dreams:
  - Activation Synthesis Model- common theory of dream
    - Modern theories with scientific support
    - Underworked brain, random firing
    - Making "sense" of sensation
    - Telling a story to integrate random firing and proprioceptive feedback
  - Everybody, every night
  - All stages of sleep
  - ~4-5 per night, lasting <40 minutes
  - typically depict ordinary events
  - mostly in color
  - lots of negative emotions
  - common themes?
  - common themes for dreams of college students- falling, trying, school, sex, attacked
- How much sleep?
  - On average, 8 hours
- Pilcher and Walters, 1997
  - Research question: What are the effects of sleep deprivation on students' cognitive performance?
    - IV
      - Experimental group: stayed up all night in lab
      - Control group: Went home to get 8 hours of sleep
    - Ps take test and rate themselves (DV)
      - Cognitive performance (actual)
      - Cognitive performance (self-perceived)

    - DV= Actual cognitive performance (control group higher)
    - DV= Self perceived cognitive performance (experimental group higher)
- Sleep Deprivation
    - Impaired reactions
    - Impaired performance
    - Suppressed immune responses
    - More vulnerable to obesity
- Why sleep?
    - Roles of sleep:
        - Protective
        - Recuperation
        - Remembering
        - Growth
    - Performance, psychological status, and mood improve with increased sleep