

UNIT 5: STATES OF CONSCIOUSNESS

State Of Consciousness That Are Possible For The Human Mind
Dreaming....Wakefulness....hypnosis...meditation...chemically altered states...

KEY QUESTION:

CORE CONCEPT:

The Consciousness Returns

–Up until the 1960's psychology was simply a science of behavior (Thanks to Watson)

–The psychology of consciousness and the mind returned as cognitive psychologists, neuroscientists, and computer scientists resurrected it. ...(Remember the old structuralists and introspection)

–New tools, such as brain scans, sought them to seek out a better explanation than simple behavior...now they could see how the brain processed information.

Cognitive Neuroscience: pg 89-90

Nonconscious Process:

Consciousness: pg 176

THE CONSCIOUS AND NONCONSCIOUS MINDS

William James: “**Stream of Consciousness**” ...ordinary waking consciousness to a flowing stream that carries ever-changing sensations, perceptions, thoughts, emperies, feelings, motives and desires...

Freud: “**Tip of the Iceberg**” There is a much larger, unseen presence beneath the surface

WHAT THE CONSCIOUS DOES FOR US

p163

1. Restriction:

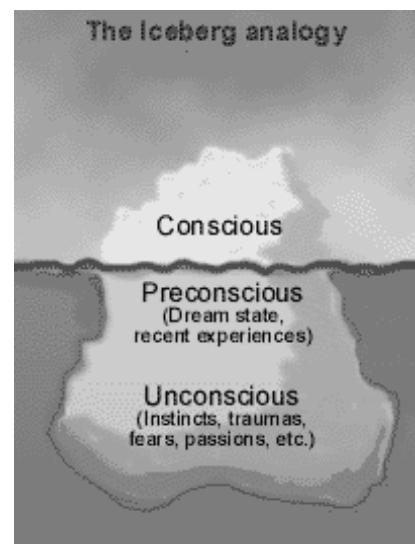
Restricts our attention, limits the available information, prevents the brain from being overwhelmed

2. Combination:

Provides a mental “meeting place” where sensations can combine with memory, emotions, motives, etc...

3. Manipulation:

Allows us to create a metal model of the world that we can manipulate



LEVELS OF THE NONCONSCIOUS MIND

1. The Preconscious:

Preconscious Memories:

2. The Unconscious:

In Freudian theory, the part of the mind that houses memories, desires, feelings that could be threatening if brought to the consciousness.

FREUD'S PERSONALITY STRUCTURE pg 481

Three levels to a person's personality

Id: what a person **wants** to do

If you are hungry, eat all the food at once

Ego: what person **can** do

If you are hungry, knows to save food as you will need it later

Superego: what a person **should** do

Stops you from stealing the food

FREUD AND THE UNCONSCIOUS

- Powerful unconscious forces actively work to block, or repress, sexual desires and traumatic memories.
- If allowed to break through they could cause problems for the individual
- The unconscious mind serves as a mental prison where terrible urges and threatening memories can be kept away from awareness

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KEY QUESTION:

CORE CONCEPT:

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Daydreaming: pg176

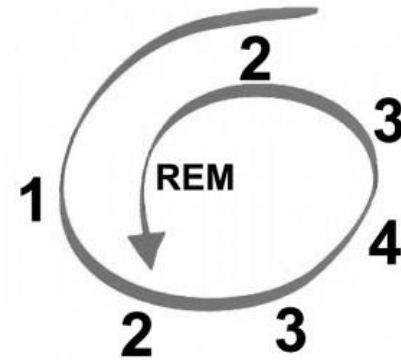
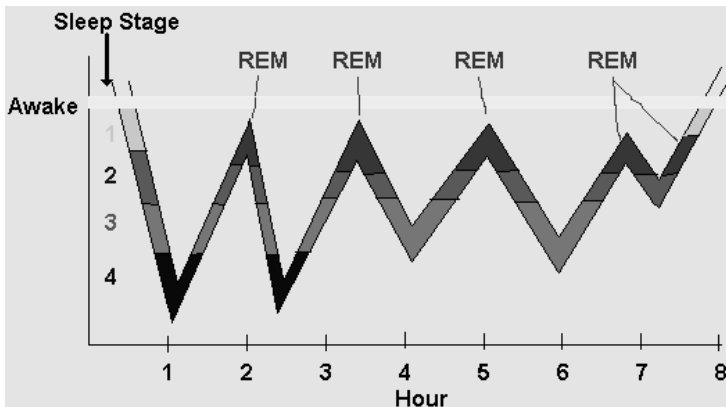
- Daydreaming can help make help solve problems/issues in one's life
- Studies show that deliberate efforts to suppress unwanted thoughts (a certain annoying song) often fails
- Rarely as vivid as night dreams

SLEEP

Circadian Rhythms: pg 177-178

–For most, the normal cycle of sleep-waking is between 24-25 hours, closer to 25 hours

The Sleep Cycle



Waking: This is relaxed wakefulness and the body prepares for sleep. People fall asleep with tense muscles, and their eyes move erratically. As the individual moves closer to sleep, muscles relax and eye movement slows down.

Stage 1: The first sequence is drowsiness. The eyes are closed, begin to roll slightly, but a person can be easily aroused. Brief periods of **alpha waves** Stage 1 usually lasts 5-10 minutes.

Stage 2: This period is one of light sleep. There are spontaneous periods of muscle tone mixed with periods of muscle relaxation. The heart rate slows and body temperature decreases. The body is preparing to enter deep sleep. The peaks of brain waves become higher and higher (**sleep spindles**)

Stages 3 and 4: These are deep sleep (or **delta sleep**) stages, with stage 4 being more intense.

Very slow brain waves, called **delta waves**

Non-Rem Sleep: This occurs in stages 1-4 and lasts from 90-120 minutes, each stage lasting between 5 and 15 minutes.

A normal sleep cycle has this pattern:

–waking, stage 1, 2, 3, 4, 3, 2, REM, 2,...–

REM Sleep: pg 178

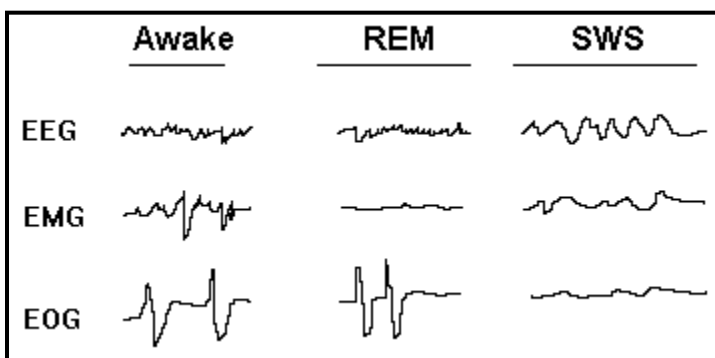
REM sleep usually occurs 90 minutes after sleep has begun.

This period is one of rapid eye movements and intense dreaming.

In most instances, muscle paralysis occurs in the major voluntary muscle groups.

The first REM period of sleep lasts about 10 minutes, with the next REM period a little longer, until the final REM stage, lasting about one hour.

An individual completes five sleep cycles during a typical night's sleep.



REM: Rapid Eye Movement

These lines represent the EEG (electroencephalogram) which shows a record of **brain activity**; the EMG (electromyogram) shows **muscle activity**; the EOG (electroculogram) shows **eye movements**.

Look at the differences in the EEG, EMG and EOG during waking, REM sleep (Rapid Eye Movement Sleep) and SWS sleep.

Non-REM Sleep: pg 180

Sleep Walking/ Sleep Talking: pg 179-180

Do not occur in REM, but in deepest stage of non-REM sleep

Sleep Paralysis: pg 178

REM Rebound: pg 191

The condition of increased REM sleep after being deprived of REM sleep

THREE MOST IMPORTANT FEATURES OF NORMAL SLEEP

1. The 90 minute cycles
2. Deepest sleep occurs near the beginning of the night
3. Increase of REM duration as sleep progresses

Sleep Debt: pg 182-184

DREAMING

- Occur regularly throughout the night
- Brain Stem: one of the primary areas of the brain that controls dreaming
- Content of dreams varies by culture, gender, and age Women dream of children...men of aggression
- Dream content often reflects recent experiences (Usually the first dream of the night connects to events of the day)
- The last dream of the night is the one most often remembered

What is the Function of Dreams?

1. Biologically, they may be necessary for healthy brain function
2. Some see dreams as meaningful mental events serving pressing cognitive needs or reflecting important events/fantasies in the dreamer's mental world
3. Others believe dreams are the brain's random activity during sleep with no special meaning
4. Dreams help us remember and learn new skills
(REM may be a normal part of weaving new experiences into old memories)

FREUD'S PSYCHOANALYTIC THEORY OF DREAMING

Dreams serve two main functions:

1. **Guard sleep** (by disguising disruptive thoughts with symbols)
2. **Serve as sources for wish fulfillment**

Freud also believed...

dreams reflect a person's unrecognized fears and desires.
relieving psychic tensions created during the day.

Manifest Content: pg 188

Latent Content: pg 189

DREAMS AS RANDOM ACTIVITY

Activation-Synthesis Theory: pg 190

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Dreams are the result of the brain trying to make sense of this random activity
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SLEEP DISORDERS

Insomnia: pg 185-186

–The most common of sleep disorders

Sleep Apnea: pg 187

Night Terrors: pg 187

–Occurs primarily in children in stage 4 of sleep

Narcolepsy: pg 186

–Typically lasts about 15 minutes

–Usually brought on by emotional excitement and often in conjunction with cataplexy

–Thought to be a disease of REM sleep control

Cataplexy: pg 186

–Cataplexy and sleep paralysis are thought to be the result of the triggering during waking of the mechanism that normally serves to suppress muscle tone during REM sleep.

–Possible abnormalities in the pons

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KEY QUESTION:

CORE CONCEPT:
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HYPNOSIS

Hypnosis: pg192-196

Posthypnotic Suggestion: pg 194

Biofeedback: A system that provides information, or ‘feedback’ about a bodily function.

Once the information is known, it can be used to change bodily functions that were once thought to be involuntary ...such as heart rate, blood pressure

Theories of Hypnosis: pg 195-196

1. Hypnosis as a Social Phenomenon –

2. Hypnosis as Divided Consciousness –

PSYCHOACTIVE DRUGS AND ADDICTION

Psychoactive drugs: pg 197

–Impair brain mechanisms that usually help people make good decisions

Depressants: pg 199-200

Examples: barbiturates, benzodiazepines, alcohol

Opiates: pg 201

Examples: morphine, codeine, heroin, methadone

Stimulants: pg 201-205

Examples: cocaine, crack, amphetamines (speed), MDMA (ecstasy), caffeine, nicotine

Hallucinogens: 205-207

Examples: LSD, cannabis, PCP,
THC causes the release of dopamine

Tolerance: pg 197

Physical Dependence: pg 197

Addiction: pg 197

Withdrawal: pg 197

