The Stuff That Dreams are Made of: The Psychology Behind Dreams and Nightmares

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Video - Big Lebowski Dream Sequence
Common Questions

- Does everyone Dream?
- Does it matter if I remember Dreams or not?
- Do Dreams have meaning?
All that we see or seem
Is but a dream within a dream
Edgar Allen Poe
Basics about Sleep: 3 Key Factors

- Sleep Debt - Begin accumulating the debt as soon as wake up
- Circadian Rhythm - Sleep wake cycle or biological clock with two cycles a day
- Environment - Can have an alerting effect or sleep inducing effect
Sleep Structure

- NREM 4 stages indicating depth of sleep
  - Slow wave brain activity, movable body, 75-80% of sleep
  - Neuro-physiological health

- REM Sleep
  - Rapid desynchronized wave
  - Paralyzed body
Sleep Cycle

- Wakefulness
- REM
- NREM 1
- NREM 2
- NREM 3/4

- About 90mins

- 4-6 per night

- 2HRS Per night in REM

- 23YRS By age 80 (5yrs in REM)
SLEEP

- Memory
- Concentration/Attention
- Emotion Regulation
- Immune System
- Obesity
- Cardiovascular Disease & Hypertension
- Accidents
- School & Job Performance
Nocturnal Mentation Defined

Dreams

Mentation that occurs during sleep in which images, thoughts, and sensations are organized in a story like manner. Range from the sensible to the bizarre.

Bad Dreams

Vivid, dysphoric dreams that often include intense fear, anxiety, or terror and are remembered upon awakening in the morning.

Nightmares

Similar to Bad Dreams but the feelings are so intense they cause the individual to awaken and are remembered.

Idiopathic - Different Content

Recurrent - Repetitive Content of focusing on a specific event
## Related Nocturnal Mentation

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<th>Lucid Dreams</th>
<th>Hypnagogic Dream</th>
<th>Night/Sleep Terrors</th>
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<td>A dream during which the person is aware they are dreaming.</td>
<td>A dream that occurs between the transition of waking and sleep</td>
<td>Episode of screaming, crying, and intense fear while asleep. Difficult to arouse the person and typically do not remember the event. Typically occur in a different phase of sleep (slow wave or deep sleep).</td>
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Are dreams adaptive, functional, and meaningful?
Evidence of Adaptation

- REM Rebound

- REM Deprivation

- When surgically enable movement display meaningful action, e.g., hunting behavior off line species simulations
Evidence of Function

- Fear Extinction/Threat Simulation
- Learning and Memory Consolidation
- Problem Solving and Creative Thinking
- Mood Regulation
Evidence of Meaning

- Dreams are not governed by the rules of physics
- Two-thirds dream content has negative emotion
- Most have elements of negative content
- Almost half have elements of positive content
- Dreams are consistent with waking life
Disturbed Dreaming

- Bad Dreams and Nightmares
  - Developmentally increase from middle childhood to peak in young adulthood then typically decline as age
  - Normative to have idiopathic Disturbed Dreaming
  - Nightmare disorder diagnosed based on frequency and distress
  - Recurrent/Repetitive Nightmares (PTSD)
  - Gender difference (depression, anxiety and interpersonal trauma)
  - Nightmare Content distinctions - death, victimization, frequency and severity of aggressive acts
  - Bad Dream distinction - increased overall reference to affect both positive and negative and more regulated
Treatment for Nightmare Distress

- Image rehearsal for Nightmares remember dream and change the ending
- Exposure nightmare content - Virtual Reality