Sleep, Dreams and Hypnosis

Although sleep may seem paradoxical to the animal world, it is necessary for normal mental and physiological functioning. Sleep allows the body to eliminate waste products, to repair tissue, to strengthen the immune system and to restore and rejuvenate energy stores. Scientists also believe there are several mental benefits of sleep, particularly with problem solving, learning and memory.

Sleep is characterized by a rhythmic pattern of brain waves which begin at stage 1 and move to stage 4 followed by a reversal from stage 4 back to stage 1 and ending with rapid-eye movement (REM) sleep (see figure below), where there is eye movements, a loss of muscle tone, and vivid dreams taking place. REM and non-REM sleep continue to alternate throughout the night although the timing of each stage is quite variable from one individual to the next.

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Dreams have long puzzled psychologists and cultures alike including the reasons for their occurrence, and the content of the dream in relation to the individual. Several theories have been proposed by researchers to explain why we dream. Although each dream theory has some logical or research-based approach to it, they also have their individual drawbacks.

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<th>Theory</th>
<th>Explanation</th>
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<td>Dreams as Unconscious Wishes</td>
<td>Every dream is meaningful regardless of how absurd the images may seem and that they express our “unconscious wishes and desires.” Freud also suggested that dreams contain conscious manifest (remembered) content and a deeper layer of unconscious latent content (hidden/symbolic wishes).</td>
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Dreams express our ongoing concerns of conscious waking life (relationships, work, health etc.) and provide an opportunity to resolve current concerns and problems. In this theory, symbols of a dream convey its true meaning.

Dream as a modified version of the cognitive activity that goes on when we are awake; brain is doing the same work as if it was awake, without receiving any sensory input or feedback. Dreams are therefore based on an individual’s knowledge and understanding.

REM sleep triggers spontaneous neuron firing from the pons which evokes random visual memories. The sleeping brain tries to weave these random signals by synthesizing or integrating them with existing knowledge and memories to produce a coherent interpretation. (ex. If there is a firing of neurons in the brain that influence balance, the individual may dream about falling).

Hypnosis is a state of consciousness in which a person loses their power of voluntary action and is highly responsive to a practitioner (hypnotist) who suggests changes in the sensations, perceptions, thoughts, feelings or behaviour of that individual.

Most psychology researchers agree on the following points about the nature of hypnosis:

- Responsiveness of hypnosis depends more on the effort and qualities of the person being hypnotized rather than on the hypnotist
- Hypnotized people cannot be forced to behave against their will
- Hypnosis does not enable people to do things that would otherwise not be possible
- Memory recall is not enhanced by hypnosis
- Hypnosis does not produce a “re-experiencing” of past events
- Psychological and medical problems can be effectively treated using hypnosis

Although several theories have been proposed to explain hypnosis including its effects, two prominent theories are often discussed:

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<td>Dissociation Theories</td>
<td>Hypnosis causes a split in awareness – one part of the conscious mind operates independently than the rest of consciousness</td>
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<td>Socio-cognitive Approach</td>
<td>Effects of hypnosis are not based on an altered state but on the social influence of the hypnotist and expectations of the subject.</td>
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