

Waking Consciousness

Consciousness occurs in varied states. We have not only the normal states of seeing and hearing, reasoning and remembering, daydreams and fantasies, but also the altered consciousness of sleep, hypnotic states, chemically induced hallucinations, and near-death visions.

Psychology began as the study of consciousness, then turned to the study of observable behavior. Today, scientific investigation of states of mind is again one of psychology's pursuits. Speedy parallel processing handles subconscious information; conscious processing is serial and much slower. Virtually everyone daydreams, especially in times when their attention can be freed from the tasks at hand. Daydreaming can be adaptive; it can help us prepare for future events and may substitute for impulsive behavior.

Sleep and Dreams

Biological Rhythms

Our age-old biological rhythms affect our daily functioning and especially our sleep and dreams.

The Rhythm of Sleep

Our daily schedule of waking and sleeping is timed by a body clock known as circadian rhythm. Each night's sleep also has a rhythm of its own, running from transitional Stage 1 sleep to deep Stage 4 sleep and back up to the more internally active REM sleep stage. This cycle repeats several times during a normal night's sleep, with periods of Stage 4 sleep progressively shortening and of dream-laden REM sleep lengthening.

Why Do We Sleep?

Depriving people of sleep has not conclusively revealed why, physiologically, we need sleep. Recent research reveals that sleep is linked with the release of pituitary growth hormone and that it may help to restore brain tissues and consolidate memories. Sleep may also have played a protective role in human evolution.

Sleep Disorders

The disorders of sleep include insomnia (recurring wakefulness), narcolepsy (sudden uncontrollable sleepiness or lapsing into REM sleep), and sleep apnea (the stopping of breathing while asleep).

Dreams

Although conscious thoughts can occur during any sleep stage, awakening people during REM sleep yields predictable "dreamlike" reports; awakening during other sleep stages yields only an occasional fleeting image. Our dreams are mostly of ordinary events and everyday experiences; they tend to involve some anxiety or misfortune more than an achievement.

Freud believed that a dream's manifest content, or story line, is a censored version of its latent content, some underlying meaning that gratifies our unconscious wishes. More recent explanations of why we dream suggest that dreams (1) help process information from the day and fix it in memory, (2) serve a physiological function, and/or (3) are the brain's efforts to synthesize periodic hallucinations (from activity bursts in the visual cortex) into a story line. Despite their differences, most theorists agree that REM sleep and its associated dreams serve an important function, as shown by the REM rebound that occurs following REM deprivation.

Hypnosis

Facts and Falsehoods

Although hypnosis was historically linked with quackery, it has more recently become the subject of serious research. Psychologists now agree that hypnosis is a state of heightened suggestibility to which people are subject in varying degrees, and that, although hypnotic procedures may help someone to recall past events, the hypnotist's beliefs frequently work their way into the subject's recollections. They also agree that hypnotized people can no more be made to act against their will than can unhypnotized people. Hypnosis can be at least temporarily therapeutic, and hypnotizable people can enjoy significant pain relief.

Is Hypnosis an Altered State of Consciousness?

Hypnosis is at least partly a by-product of normal social and cognitive processes. Many researchers believe it also is an altered state of consciousness, perhaps involving a dissociation between levels of consciousness.

Drugs and Consciousness

Psychoactive drugs, including depressants, stimulants, and hallucinogens, also alter consciousness.

Dependence and Addiction

Drugs often trigger withdrawal symptoms—negative aftereffects that oppose and offset their temporary pleasure. Such symptoms can lead to physical or psychological dependence. Medical use of drugs rarely creates addictions, however, and many who do suffer drug addictions overcome them when their social context changes.

Psychoactive Drugs

Alcohol, barbiturates, and the opiates act by depressing neural functioning. Each offers pleasures, but at the cost of impaired memory and self-awareness or other physical consequences.

Caffeine, nicotine, the amphetamines, cocaine, and Ecstasy act by stimulating neural functioning. As with nearly all psychoactive drugs, they act at the synapses by influencing the brain's neurotransmitters, and their effects depend on dosage and the user's personality and expectations.

LSD and marijuana can distort the user's judgments of time and, depending on the setting, can alter sensations and perceptions.

Influences on Drug Use

Drug use among teenagers and young adults declined during the 1980s, as attitudes changed, and began a rebound during the mid-1990s. Psychological factors (such as stress, depression, and hopelessness) and social factors (such as peer pressure) combine to lead many people to experiment with—and become dependent on—drugs. Some people also appear to have a greater biological susceptibility to dependence on drugs such as alcohol.

Near-Death Experiences

About one-third of those who have survived a brush with death, such as through cardiac arrest, later recall visionary near-death experiences. Dualists interpret these experiences as evidence of human immortality. Monists point out that reports of such experiences closely parallel reports of hallucinations and may be products of a brain under stress.