

LECTURE II. THE BASIC PSYCHOLOGY CONCEPTS RELATED TO MEDICINE



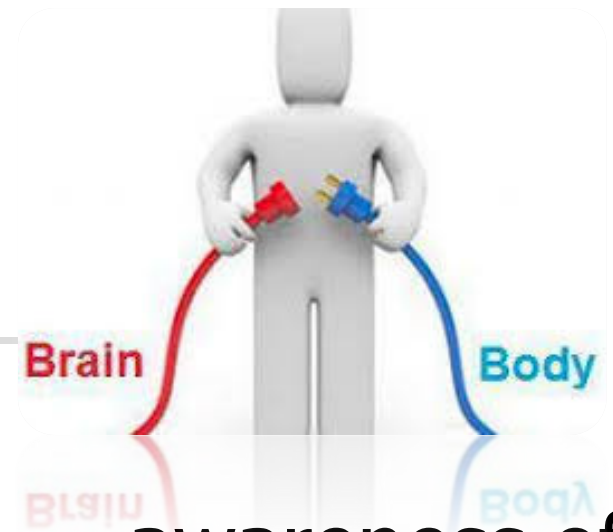
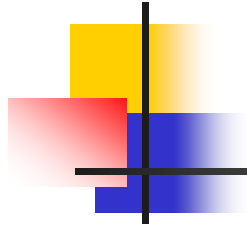
- 1. The human consciousness**
- 2. The main components of conscience:
ID, EGO, Super-EGO**
- 3. Altered states of consciousness**

**Presented by:
PhD - Cernitanu Mariana**



STRUCTURE:

- 1. The human consciousness**
- 2. The main components of conscience:
ID, EGO, Super-EGO**
- 3. Altered states of consciousness (sleep,
biofeedback, meditation)**
- 4. Altered states of consciousness caused
by psychoactive drugs.**



- **Consciousness** (сознательность) - awareness of the thoughts, images, sensations, and emotions that flow through one's mind.
- **Conscience** (сознание) (exemple: to be ashamed of sth)- moral dimension of human consciousness, the means by which humans modify instinctual drives to conform to laws and moral codes.



Everything is in our mind...





Sigmund Freud theorized that the human mind is divided into three parts:

- **the conscious (consciousness)** we can control it
- **preconscious** (we can't control it)
- **unconscious.** (we can't control it)



■ **Conscious** - the level of the mind, consisting of thoughts and feelings of which one is aware.

- **Preconscious** - is an intermediate or transitional level of mind between the unconscious and the conscious.
- **Unconscious** - the unconscious, a repository for thoughts and feelings that are repressed because they are painful or unacceptable to the conscious mind for some other reason.
- !!! The preconscious and unconscious minds are the repositories of secret or sexual desires that threaten our self-esteem, or ego.



Consciousness

id

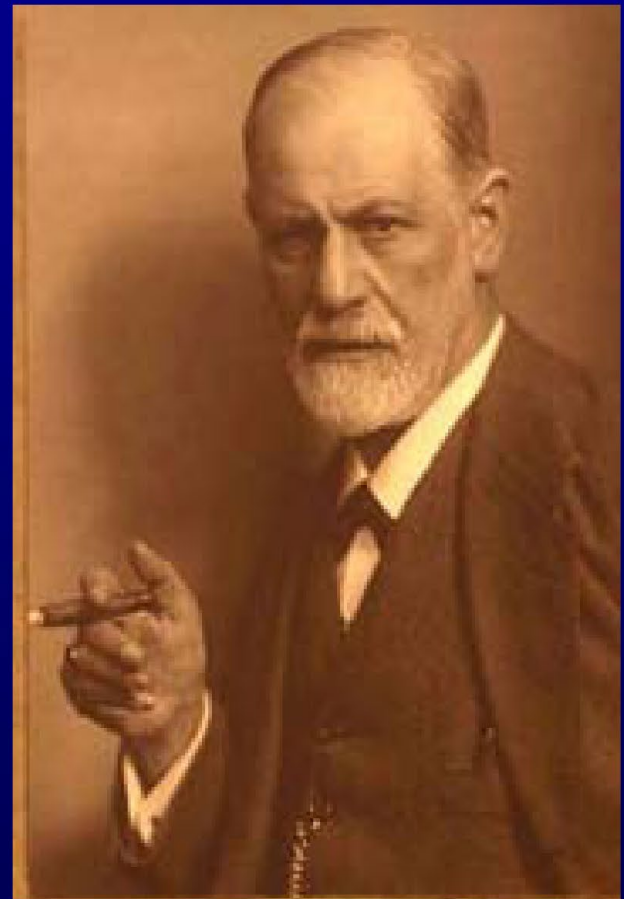
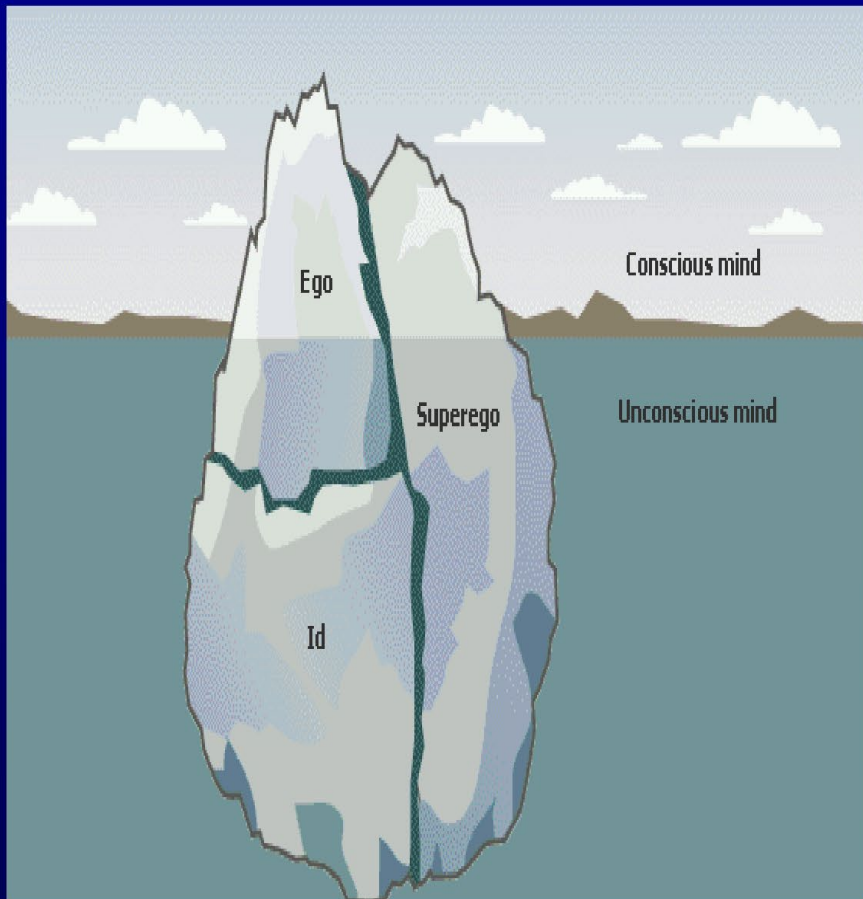
ego

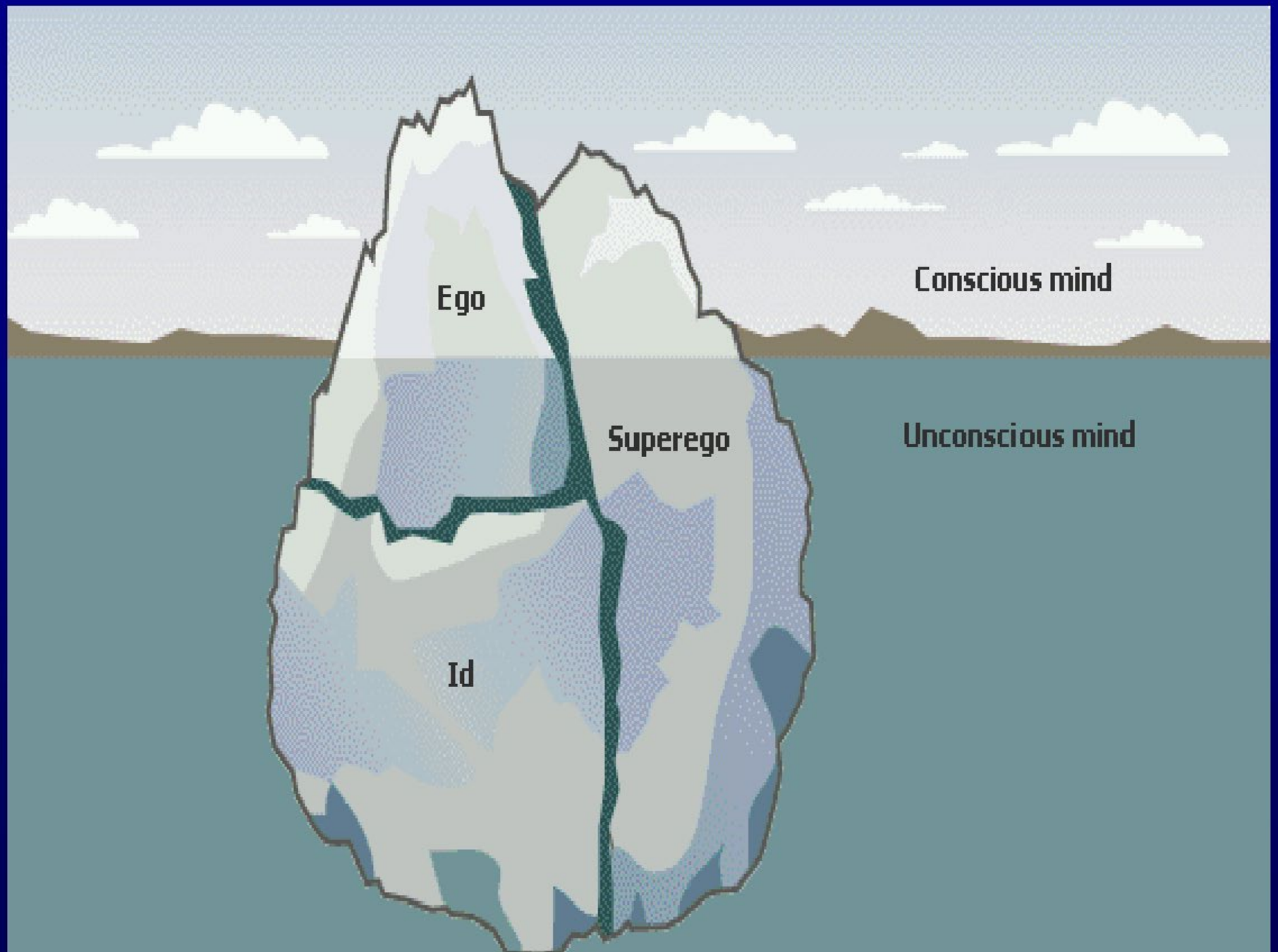
super-ego

Id. The most primitive, unconscious element of human personality. The part of the personality that includes such basic biological impulses or drives as eating, drinking, eliminating wastes, avoiding pain, attaining sexual pleasure, and aggression. The id operates on the “pleasure principle,” seeking to satisfy these basic urges immediately with no regard to consequences.

Ego. The part of human personality that combines innate biological impulses (id) or drives with reality to produce appropriate behavior.

Super-ego. The super-ego is one of three basic components of human personality. The superego judges actions as right or wrong based on the person’s internal value system.







- A healthy balance between the more instinctual demands of **the id** and the moral demands of **the superego**, as negotiated by **the ego**, results in a “normal” or healthy personality.



Consciousness has various modes, called **altered states of consciousness.**

Main characteristics of altered states of consciousness are:

- Shallow (one dimensional) mental processing.
- Change in the way the self is experienced.
- Loss of normal inhibitions.
- Disconnect of perceptions from reality.
- Increase in vividness (brightness) of the contents of consciousness.



Main altered modes of consciousness

- sleep,**
- hypnosis,**
- meditation,**
- biofeedback,**
- altered states of consciousness
caused by alcohol, stimulants,
marijuana, and hallucinogens etc.**



Sleep

- one mode of consciousness, composed of several cyclical 90 – minute cycles of four stages, each with a characteristic brain wave pattern.



Sleep mechanism

- Different types of brain waves are typically recorded at different stages of sleep. **Beta waves** (14+ cycles per second) are fastest and are typical in a fully awake person. **Alpha waves** (8-13 cycles per second) are characteristic of relaxation. As a person falls asleep, **theta waves** (5-7 cycles per second) also become evident. As sleep becomes deeper, **delta waves** (4 or fewer cycles per second) become predominant.
- In a typical night's sleep, you progress from stage 1 to stage 4, and back to stage 1, about every 90 minutes.

Dreams occur during the REM (rapid eye movement).



Most common sleep disorders:

- **Insomnia**, the inability to stay asleep or difficulty going to sleep.
- **Sleep apnea** is the stoppage of breathing after failing asleep, which may then be followed by awakening and gasping for air.
- **Narcolepsy** a disorder in which people will suddenly fall asleep, losing muscle control and often entering the REM period immediately.



Hypnosis

The term “hypnosis” comes from the Greek word for sleep (*hypnos*), hypnotized people are not really asleep.

Other characteristics of hypnosis:

- - lack of initiative,
- - selective redistribution of attention,
- - enhanced ability to fantasize,
- - reduced reality testing, and
- - increased suggestibility.

!!! Hypnosis has proven useful in preventing or controlling various types of pain, including pain from dental work, childbirth, burns, arthritis, nerve damage, and migraine headaches.



Hypnosis degrees:

- **Under *light hypnosis***, the subject becomes sleepy and follows simple directions;
- **Under *deep hypnosis***, the person experiences dulling of sensory perception, similar to that of anesthesia.
- Many researchers contend that the key factor in hypnosis is the subject's willingness to cooperate with the hypnotist, combined with the subject's belief that hypnosis works.
- **!!! It is estimated that about 70 percent of all people can be hypnotized at some level.**



Classical hypnotic induction involves a series of steps:

- **First**, sensory input to the subject is restricted, and the subject is instructed to stop moving.
- **Second**, the subject's focus of attention is narrowed. This may be accomplished by asking him or her to focus on a specific point of light or a spot on the wall.
- **Finally**, the hypnotist begins a pattern of monotonous repetition. The hypnotist may repeatedly tell the subject to relax, to breathe slowly and deeply, and to focus attention on a fixed point.



Meditation

In meditation, an altered state of consciousness is achieved by performing certain rituals and exercises. During this state, people consume less oxygen, eliminate less carbon dioxide, and breathe more slowly than when they are in an ordinary resting state.

Typical characteristics of the meditative state:

- intensified perception,
- an altered sense of time,
- decreased distraction from external stimuli,
- a sense that the experience is pleasurable and rewarding.

The benefit of meditation: Supporters of meditation claim it reduces stress, increases happiness and enriches life.

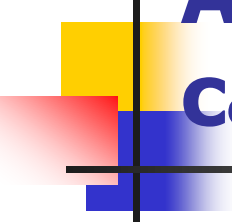


Biofeedback

- imply the use of self introspection to give a person continuous information about his or her biological state.
- By trial and error, the subject **learns** to control these internal states and regulate a variety of physiological processes, such as heart rhythms, body temperature, and muscle tension.
- Biofeedback has been used to increase the person's self control.

Altered states of consciousness





Altered states of consciousness caused by psychoactive drugs

Consciousness may be altered in a dramatic fashion by the use of psychoactive drugs, which affect the interaction of neurotransmitters and receptors in the brain.



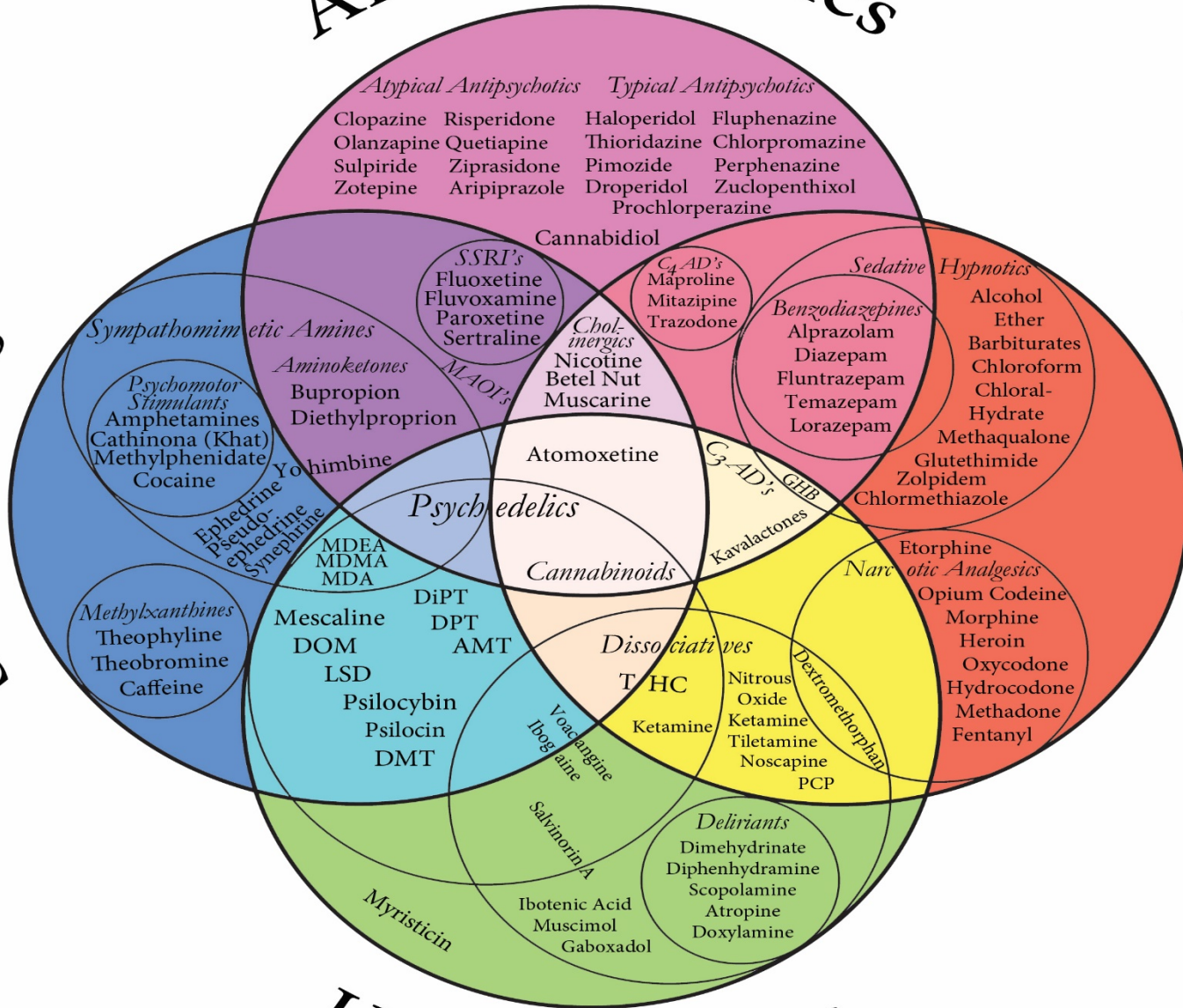
Alcohol

- **Alcohol** - the most widely used psychoactive drug. It is a depressant and suppresses nerve impulses.
- People sometimes feel elated (overjoyed) when they drink a small amount of alcohol because it slows down the brain centers that normally control social inhibitions.

Anti-Psychotics

Stimulants

Depressants



Psychoactive Drugs

LO 4.7 Physical and Psychological Dependence on a Drug

- Psychoactive drugs: drugs that alter thinking, perception, and memory
- Physical dependence
 - tolerance: more and more of the drug is needed to achieve the same effect
 - withdrawal: physical symptoms resulting from a lack of an addictive drug in the body systems
 - can include nausea, pain, tremors, crankiness, and high blood pressure

Psychoactive Drugs

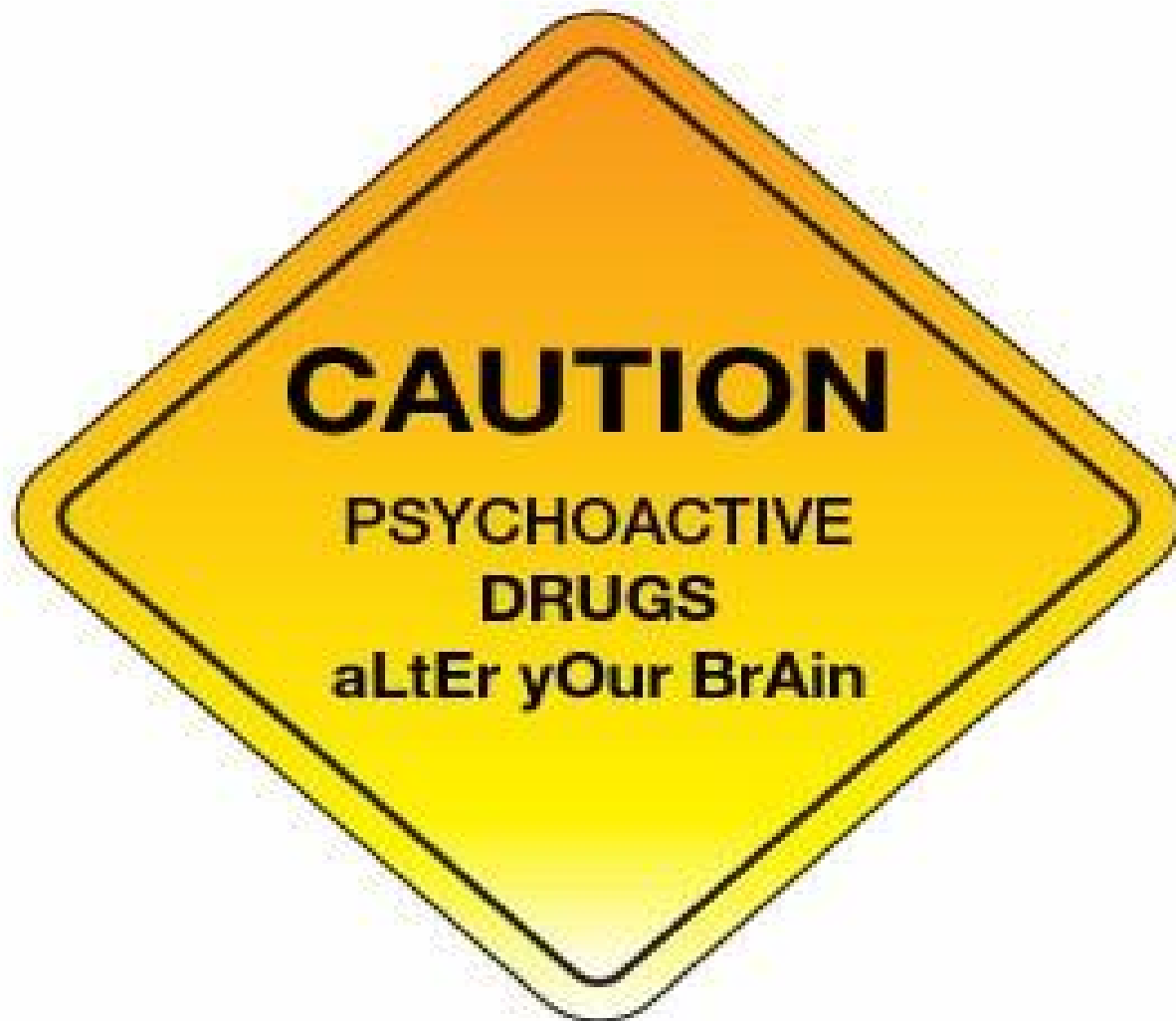
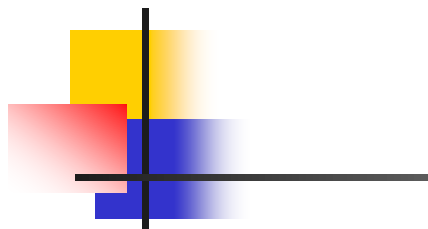
LO 4.7 Physical and Psychological Dependence on a Drug

- Psychological dependence: the feeling that a drug is needed to continue a feeling of emotional or psychological well-being

Table 4.5

How Drugs Affect Consciousness

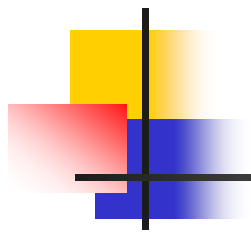
DRUG CLASSIFICATION	COMMON NAME	MAIN EFFECT	ADVERSE EFFECTS
Stimulants		Stimulation, excitement	
Amphetamines	Methamphetamine, speed, Ritalin, Dexedrine		Risk of addiction, stroke, fatal heart problems, psychosis
Cocaine	Cocaine, crack		Risk of addiction, stroke, fatal heart problems, psychosis
Nicotine	Tobacco		Addiction, cancer
Caffeine	Coffee, tea		Addiction, high blood pressure
Depressants		Relaxation	
Barbiturates (major tranquilizers)	Nembutal, Seconal		Addiction, brain damage, death
Benzodiazepines (minor tranquilizers)	Valium, Xanax, Halcion, Ativan, Rohypnol		Lower risk of overdose and addiction when taken alone
Alcohol	Beer, wine, spirits		Alcoholism, health problems, depression, increased risk of accidents, death
Narcotics	Opium, Morphine, heroin	Euphoria	Addiction, death
Hallucinogens	LSD, PCP, MDMA (Ecstasy), Marijuana	Distorted consciousness, altered perception	Possible permanent memory problems, bad "trips," suicide, overdose, and death





Bibliography:

- 1. CERNITANU Mariana, Etco Constantin *Medical psychology* (courses for medical students) Editorial-Polygraphic Center Medicina, Chisinau, 2011.
- 2. MAYOU Richard, SHARPE Michael, CARSON Alain *ABC of medical psychology* First published in 2003 by BMJ Books, BMA House, Tavistock Square, London. 2007.
- 3. PLANTE Thomas G. *Contemporary clinical psychology*. Second Edition. Santa Clara University. 2005.



Mulumesc pentru atentie!

