

All Arounders

Maria (Cruz) Buffo, M.A., LMFT

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AS2

Psychedelics

Altering the
Consciousness



Psychedelics

“dramatically alter the user’s perceptions of the surrounding and thoughts and create a world in which reason takes a backseat to the intensified sensations generated by illusions, delusions and hallucinations.”

History

- * Have existed over 250 million years
- * Human use, more than 10,000 years
- * Mutation to develop chemicals as a defense
- * More than 4,000 plants have psychedelic properties
- * Over the past 100 years the development of synthetic hallucinogens

Classification

- * Indoles:

- * LSD, psilocybin mushrooms, ayahuasca

- * Phenylalkylamines:

- * Peyote, MDMA (ecstasy)

- * Anticholinergics:

- * Belladonna, datura

- * Individual Classified:

- * PCP, Ketamine, Salvia Divinorum,
dextromethorphan(DXM)

- * Cannabinoids:

- * Marijuana

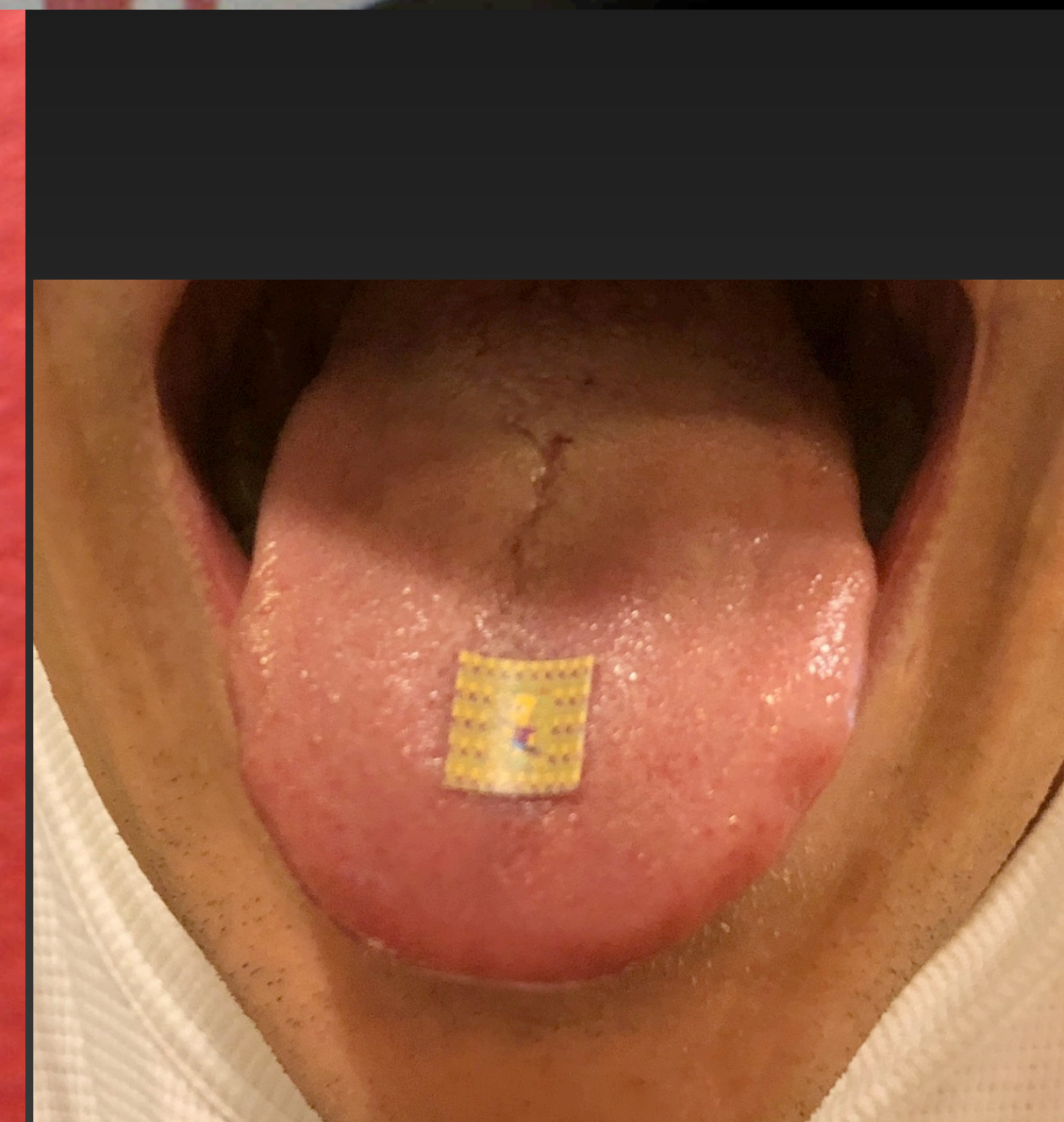
LSD

- * Lysergic acid diethylamide
- * First synthesized on November 16, 1938 by Swiss chemist Albert Hofmann Basel, Switzerland;
research program searching for medically useful ergot alkaloid derivatives
- * 1950 sold as Delysid[®] medication for psychological insight in psychotherapy and alcoholism
- * 1950-60's: CIA used LSD as potential truth drug
- * LSD is illegal and is classified by the Drug Enforcement Agency (DEA) as a Schedule I drug,
meaning the LSD has a high potential for abuse

LSD

Short term side effects

- *Increased blood pressure, heart rate, and body temperature
- *Dizziness and sleeplessness
- *Loss of appetite, dry mouth, and sweating
- *Numbness, weakness, and tremors
- *Impulsiveness and rapid emotional shifts that can range from fear to euphoria, with transitions so rapid that the user may seem to experience several emotions simultaneously



Psilocybin

- Indole chemical compounds obtained from certain types of dried or fresh hallucinogenic mushrooms found in Mexico, Central America and the United States
- 180 species of mushrooms that contain the chemicals psilocybin or psilocin
- Found in U.S, South America, Southeast Asia, Europe and Mexico
- First used in religious rituals



Psilocybin

Short term side effects

- * Feelings of relaxation (similar to effects of low doses of marijuana)
- * Nervousness, paranoia, and panic reactions
- * Introspective/spiritual experiences
- * Misidentification of poisonous mushrooms resembling psilocybin could lead to unintentional, potentially fatal poisoning



Peyote

- * Peyote is native to Mexico and southwestern Texas
- * Long history of ritualistic and medicinal use by indigenous North Americans
- * Hours to reach the peak effects
- * Mescaline is the active component
- * Meso-American culture used for rituals
- * Synthetic: MDMA

Peyote

Short term side effects

- *Increased body temperature and heart rate
- *Uncoordinated movements (ataxia)
- *Profound sweating
- *Flushing



MDMA

- * AKA Ecstasy
- * First synthesized by a German company in 1912, possibly to be used as an appetite suppressant
- * Synthetic, psychoactive drug with a chemical structure similar to the stimulant methamphetamine and the hallucinogen mescaline



Ayahuasca

- * Possibly up to 1,000 years old
- * Combination of two plants/Vines
- * Tea used to spiritual/religious purposes (Amazonian Tribes)
- * Prepared by a shaman
- * Contains DMT
- * Both negative and positive experiences
- * Physical cleansing

Ayahuasca

Short term side effects

- *Increased blood pressure
- *Severe vomiting (induced by the tea)
- *Profoundly altered state of awareness and perceptions of otherworldly imagery



Individual Classified

pcp

- * Phencyclidine Hydrochloride
- * Discovered by Victor Maddox, a chemist at Parke-Davis in Michigan, while investigating synthetic, 1926
- * 1950 was created as an anesthetic use but never made legal
- * Due to the high rates of side effects while its use in other animals was disallowed in 1978
- * PCP is illegal



Ketamine

- * Ketamine was first synthesized in 1962 by Calvin L. Stevens, a professor of Chemistry at Wayne State University
- * FDA approval in 1970, ketamine anesthesia was first given to American soldiers during the Vietnam War
- * No longer used in humans, used as animal tranquilizer
- * AKA Special K or date rape drug



Physical and Mental Effects

Mental Side Effects

- * Effects on serotonin
- * Predominantly effects the p prefrontal cortex (mood, cognition and perception)
- * Arousal and psychological responses to stress and panic
- * Ingestion effects depend on personality, mood, expectation and surroundings
- * Considered a drug-induced psychosis Tolerance can be built if continued use exist
- * Tolerance drops off after a couple of days of not using
- * No Cross tolerance

Long Term Effects

- * No long-term residual effects from peyote (study found in Native Americans)
- * HPPD-Hallucinogen Persisting Perception Disorder
- * Visual disturbance
- * Disorganized thinking
- * Paranoia
- * Mood disturbance
- * Not enough information to determine long terms effects

Next Week: April 25

- * Marijuana- No reading
- * Other Drugs and Addiction - Chapter 7
 - * Sports Drugs
 - * Behavior Addiction

Discussion Questions:

Read the articles on the module:

Harvard Article: Do you think there should be more studies on hallucinogens? Why or why not?

John Hopkins Videos: Watch both videos and share your thoughts.



YOUR **BRAIN** ON
MDMA

