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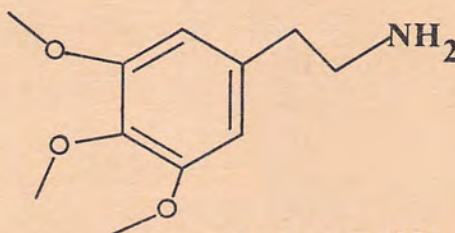
# Newsletter

Vol. 1 No. 4

1972

The misrepresentation of drugs in the illicit market is a common practice. This is particularly true of samples sold as mescaline. Out of nearly 50 samples alleged to be mescaline, only 17% were found to contain the drug. The remainder contained LSD and/or PCP. Samples sold as mescaline take all shapes, sizes and colors. Many of the samples are brown or speckled to give them a pseudo organic appearance.

Other psychedelics are sold under the guise of mescaline for several reasons: 1) the drug is in demand while the availability is low, 2) other psychedelics give similar effects, 3) a higher profit can be made by mislabelling the product mescaline, 4) many drug users are wary of taking LSD but feel that mescaline is safe. Clues to mislabelled mescaline samples are the size of the dosage form and the price. Mescaline is difficult to synthesize or extract economically and raw materials are expensive. Commercial mescaline sells for about \$20 per gram. Thus the price should be higher than for other psychedelic drugs. Real mescaline on the street is selling for \$10 to \$20 per dose. Since the average dose of mescaline is 400-500 mg., a tablet of pure mescaline would have to be larger than an average aspirin tablet (325 mg.) and a capsule would have to be very large.



mescaline

History and Uses: Mescaline (3, 4, 5-trimethoxyphenylethylamine) is the principal alkaloid of the peyote cactus (*Lophophora williamsii*), indigenous to Mexico and the Southwestern United States. It is also found in *Trichocereus terscheckii* and *T. pachanoi* (Peruvian cacti). Mescaline was first isolated in 1896 and synthesized in 1919, but the dried tops of peyote (mescal buttons) have been used for centuries by native Indians, both as a panacea and in religious rites. Early references to the drug appear in writings of the Spanish who attribute a divine origin to peyote. The cult was often spread by Indian leaders many of whom were formally educated and, by the end of the 19th Century the Native American Church was established.

In a peyote rite, the participant chews and swallows anywhere from 2 to 20 mescal buttons. The average dose of mescaline ingested in this manner is about 200-500 milligrams. The condition under which peyote is taken partially determines the psychopharmacological

symptoms. The nature of the rite and its significance have been described by Slotkin: "The worshipper eats peyote in the proper ritual environment. He participates in a collective rite, but spends most of his time in contemplation. This collective isolation is enhanced by several conditions: a drum beating; the bitter and nauseating taste of the mescal buttons; the difficulty of sitting on the ground all night in one position; the hypnotic effect of the blaze of the fire, and the peculiar lullaby effect of repetitive prayer-songs intensifying a dreamy state." The religion is based on belief in a Great Spirit who created the universe and controls the destinies of everything in it. The Spirit has placed part of his supernatural power in peyote, hence by eating peyote, the believer absorbs some of its power and spiritual effects. The rite enables a worshipper to forget the outside world so he can contemplate the Great Spirit.

Peyote or mescaline was once alleged to be useful as a tonic, sedative for dyspnoea, diuretic, and in the treatment of asthma as well as neuralgic and rheumatic afflictions. It has been used to reduce fatigue and heighten the sensitivity to relevant stimuli. In modern experiments, mescaline has been used to induce a "model psychosis". This model may elucidate a biochemical basis for schizophrenia.

Behavioral and Physiological Effects: The effects of mescaline appear slowly and persist for 10-18 hours. These effects include a dilation of the pupils, increase in body temperature, difficulty in thinking, euphoria or dysphoria, increased sensory perception, anxiety, visual hallucinations and alteration of body image. It produces vomiting in many people and some muscular relaxation. High doses produce cardiac depression, headaches, slowing of respiratory rhythm, contraction of the intestines and uterus, difficulty in coordination, dry skin with itching, and hypotension. Anaphrodisia has also been reported. There appears to be little or no after effects (hangover). The average human dose is about 400 to 500 milligrams (6-8 mg/kg). It is 3,000 times less potent than LSD and 30 times less potent than psilocybin. A cross tolerance between LSD and mescaline has been reported.

Psychological Effects: The effects of mescaline in humans are quite profound. Although researchers report many of the qualitative effects to be similar to those of LSD, subjects have reported some differences... There is less paranoia and "speediness" with mescaline and it seems to be less energy draining in terms of after effects. There are gradual changes in spatial and temporal consciousness. Time is experienced as emptiness or timelessness. Minutes seem to last hours. Space seems devoid of objects and subjects experience an intact ability to perceive the world objectively. The nature of environmental stimuli plays a significant role in the type of experience. Thus similar to LSD, choice of surroundings is important. Most subjects prefer a "nature" setting.

The visual and hallucinatory effects of mescaline appear to be unique. The content of hallucinations depends upon the individual. For example, a subject with no artistic skill would have different sight than the colored vision of a painter. A professional painter under the influence of mescaline depicted visions, but the mescaline itself did not alter his style of painting. He expressed his own tendencies but in an exaggerated form. Mescaline creates nothing. In visual hallucinations, colors are at first intensified. Gradually the subject shuts his eyes and entoptic phenomena appear. These are followed by true hallucinations with forms, shades and movements; finally complete scenes develop. Auditory hallucinations are rare but subjects have reported hearing "the music of the wind" or "sunlight crossing a field". The senses of smell and taste are enhanced and there is an alteration in perception of heat and cold. Senses seem to follow the rhythm of changes in stimuli.

The emotional state produced by mescaline is usually one of ecstatic euphoria. This is

sometimes followed by anxiety and less frequently, depression. The subject often observes himself as if he were two people, or he may feel his body and mind to be separate, as though the body is self-sufficient without the mind. There is loss of the sense of ego and of reality. Disturbances in logical thinking make it difficult for the subject to pursue an idea. The subject may also speak and make gestures which he does not consciously will.

Mescaline subjects have reported discovering the infinite value and meaningfulness of naked existence. Things just are or have an "is-ness". All is in all. Place and distance cease to be of much interest. The mind perceives in terms of the intensity of experiences, the profundity of the experience, or the relationship with a pattern. The mind is primarily concerned with being and meaning, not with measures and locations. Some refer to mescaline as the drug of knowledge that allows one to "see" things as they really are.

Mechanism of Action, Metabolism, Pharmacodynamics: Since the psychotomimetic dose of mescaline is unusually higher than that of similar drugs, and since the behavioral effects of mescaline do not coincide with the moment of maximum concentration in the brain, it may be that the drug's action is effected via its metabolites. In humans, for example, the period of maximal behavioral change follows maximal blood and urine levels by one to two hours. Although 3, 4, 5-trimethoxyphenylacetic acid has been found in the brain and urine of animals after the administration of mescaline, this compound itself has no psychotomimetic properties. Under certain conditions, 3, 4, 5-trimethoxy phenylethanol or 3, 4, 5-trimethoxyphenyl acetaldehyde (products of mescaline) have affected rats in much lower doses than are required for mescaline itself. It is possible that in vivo, mescaline combines with a tyramine-like compound and it may be that this biosynthetic entity is responsible for the drug's effects. On the other hand, mescaline bound to protein might be the active species. From in vitro studies, it has been suggested that the site of action is at the alpha adrenergic receptor. The relatively large concentration of drug in synaptic nerve endings, coinciding with the peak of behavioral changes in human subjects would suggest a synaptic site of action for mescaline. None of the above speculations, however, have been validated. The mechanism of action thus still remains unclear. The similar effects of LSD, psilocybin and mescaline suggest, however, that all three share a common mechanism of action.

Investigators have found various metabolites in the urine of volunteers. These included trimethoxyphenylacetic acid, the glutamine conjugate of 3, 4-dihydroxy-5-methoxy phenyl acetic acid and 3-hydroxy-4, 5-dimethoxyphenylethyl amine. Thirty to forty percent of mescaline in humans is excreted as unmetabolized drug within 24-48 hours. In the rat and dog, the maximal concentration of mescaline is found in the kidneys, lung, spleen and liver. Lesser amounts are found in the brain (most in the cortex), blood and spinal cord. In general, the drug is found in visceral organs with high vascular flow. A high dose is required to be lethal. Intraperitoneally, the lethal dose in rats is 500 mg/kg (50 to 75 times the normal oral dose in humans). Hyper-insulinism lowers the lethal dose.

Other Comments: Overdose due to mescaline is rare. Although sodium succinate was once used as an antidote, the use of phenothiazines (eg. chlorpromazine) is now more prevalent. Mescaline has been shown to induce congenital malformations when administered to pregnant hamsters. Although results in humans are not available, a teratogenic effect is possible. Most investigators agree that mescaline is not addictive or habituating but that a tolerance can develop. There is no drug accumulation in the body.

Mescaline is listed as a controlled drug, but peyote can be used legally for religious purposes by members of the Native American Church.

Bibliography: Available upon request.

# ON THE STREET

| ACTUAL<br>CONTENT   | ALLEGED<br>CONTENT            | DESCRIPTION                                         | ORIGIN                 | STREET<br>PRICE | ACTUAL<br>CONTENT                 | ALLEGED<br>CONTENT             | DESCRIPTION                                     | ORIGIN                   | STREET<br>PRICE |
|---------------------|-------------------------------|-----------------------------------------------------|------------------------|-----------------|-----------------------------------|--------------------------------|-------------------------------------------------|--------------------------|-----------------|
| 1. LSD<br>(475 ug.) | LSD                           | orange saccharin size tablet                        | San Jose, Ca.          | \$1.50/each     | 27. LSD                           | Psychedelic<br>Downer          | brown powder                                    | Monterey, Ca.            | ?               |
| 2. LSD              | LSD                           | orange saccharin size tablet<br>("Sunshine")        | San Francisco, Calif.  | \$675/gram      | 28. LSD                           | ?                              | orange saccharine size tablet                   | Palo Alto, Ca.           | ?               |
| 3. LSD              | LSD                           | bright orange powder                                | Tacoma, Wash.          | ?               | 29. LSD                           | ?                              | small clear capsule with<br>orange brown powder | San Rafael, Ca.          | \$1.50/each     |
| 4. LSD              | LSD                           | orange saccharin size tablet                        | Monterey, Ca.          | ?               | 30. LSD                           | ?                              | tan speckled tablet                             | Santa Clara, Ca.         | ?               |
| 5. LSD<br>(225 ug.) | LSD                           | dark red saccharin size tablet<br>("Rose Sunshine") | Palo Alto, Calif.      | \$1.00/each     | 31. LSD                           | ?                              | large clear capsule with<br>white powder        | Oakland, Ca.             | ?               |
| 6. LSD              | LSD                           | orange tablet, crushed<br>("Orange Sunshine")       | Palo Alto, Ca.         | \$1.25/each     | 32. LSD                           | ?                              | orange grains ("Sunshine")                      | Florida                  | ?               |
| 7. LSD              | LSD                           | red-orange tablet, crushed<br>("Sunshine")          | San Francisco, Calif.  | \$.75/each      | 33. LSD                           | ?                              | orange saccharin size tablet                    | Anchorage,<br>Alaska     | ?               |
| 8. LSD              | Mescaline                     | light brown tablet, crushed                         | Portola Valley, Calif. | \$1.00/each     | 34. LSD (325 ug.)                 | ?                              | orange saccharin size tablet                    | Mentor, Ohio             | ?               |
| 9. LSD              | Mescaline                     | white powder                                        | San Francisco, Ca.     | ?               | 35. LSD, PCP                      | Mescaline                      | brown speckled tablet                           | Berkeley, Ca.            | ?               |
| 10. LSD             | Mescaline                     | small dark red tablet                               | Berkeley, Ca.          | \$1.50/each     | 36. LSD, PCP                      | LSD                            | pale green tablet, ("Greenies")                 | Florida                  | ?               |
| 11. LSD             | Mescaline with<br>Speed       | red capsule with pink powder                        | Monterey, Ca.          | ?               | 37. LSD, PCP                      | ?                              | small purple tablet                             | Palo Alto, Ca.           | ?               |
| 12. LSD*            | Mescaline                     | dark brown powder ("Electric<br>Adobe")             | Berkeley, Ca.          | ?               | 38. PCP                           | THC                            | white powder                                    | Orange County,<br>Calif. | \$90/oz.        |
| 13. LSD             | Chocolate,<br>Mescaline       | brown powder                                        | Tampa, Fla.            | ?               | 39. PCP                           | THC                            | pink tablet                                     | Palo Alto, Ca.           | ?               |
| 14. LSD             | Hershey's Cocoa, brown powder |                                                     | Tampa, Fla.            | ?               | 40. PCP                           | THC                            | white powder                                    | Boulder, Colo.           | ?               |
| 15. LSD             | Mescaline                     | dark brown powder                                   | Tampa, Fla.            | ?               | 41. MDA                           | MDA                            | light brown powder                              | Santa Cruz, Ca.          | ?               |
| 16. LSD             | Syn. Mescaline,<br>Chocolate  | dark brown powder                                   | Tampa, Fla.            | ?               | 42. MDA*                          | MDA                            | white powder                                    | Oakland, Calif.          | ?               |
| 17. LSD             | Strawberry<br>Mescaline       | pink powder                                         | Tampa, Fla.            | ?               | 43. MDA*                          | MDA                            | brown powder                                    | Menlo Park, Ca.          | \$10/gram       |
| 18. LSD             | Mescaline or<br>Psilocybin    | white powder                                        | Palo Alto, Ca.         | ?               | 44. Mescaline                     | Mescaline                      | white powder                                    | San Francisco, Ca.       | ?               |
| 19. LSD*            | Psilocybin                    | dark moist powder                                   | Marin City, Ca.        | ?               | 45. Mescaline                     | Peyote with<br>only Strychnine | root-like pieces                                | Monterey, Ca.            | ?               |
| 20. LSD             | Psilocybin                    | dark brown powder                                   | Berkeley, Ca.          | \$1.00/each     | 46. Cocaine(98%)?<br>Procaine(2%) | ?                              | white powder                                    | Santa Monica, Ca.        | ?               |
| 21. LSD             | Psilocybin                    | brown powder                                        | Portola Valley, Calif. | \$2.00/each     | 47. Cocaine,<br>Procaine          | ?                              | white powder                                    | Palo Alto, Ca.           | ?               |
| 22. LSD             | Psilocybin                    | brown powder                                        | Berkeley               | ?               | 48. Marijuana<br>only             | "Supergrass"                   | green powder, leaves                            | Monterey, Ca.            | ?               |
| 23. LSD             | Psilocybin                    | red capsule, brown powder                           | Tacoma, Wash.          | ?               | 49. Marijuana<br>only             | "Supergrass"                   | green powder, leaves                            | Monterey, Ca.            | ?               |
| 24. LSD             | Psilocybin                    | brown and white powder                              | Monterey, Ca.          | ?               | 50. Marijuana<br>plus ?           | Marijuana                      | green-brown leaves, stems                       | Yuba City, Ca.           | ?               |
| 25. LSD             | Psilocybin(syn.)<br>or LSD    | pastel pink particles                               | Florida                | ?               | 51. Codeine                       | ?                              | large white tablet                              | Monterey, Ca.            | ?               |
| 26. LSD             | MDA                           | brown powder in large clear<br>capsule              | San Francisco, Ca.     | ?               | 52. Amphetamine                   | ?                              | white flat tablet with<br>cross-score           | Palo Alto, Ca.           | ?               |
|                     |                               |                                                     |                        |                 | 53. Unknown                       | Sage or Kif                    | brown tablet                                    | Monterey, Ca.            | ?               |
|                     |                               |                                                     |                        |                 | 54. Unknown                       | Peyote Root<br>Alkaloid        | large brown organic root-like<br>pieces         | Monterey, Ca.            | ?               |
|                     |                               |                                                     |                        |                 | 55. Negative<br>results           | ?                              | white flakes                                    | Palo Alto, Ca.           | ?               |

(\*impure)

Address correction requested



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