

# LSD Is Not a Tonic

Although LSD may bring increased artistic appreciation and self-awareness to some people, it is not a personality tonic—By Patricia McBroom

► IN NORMAL PEOPLE, the hallucinogenic drug, LSD, evidently does bring some increased artistic appreciation and greater self-understanding, but the changes are not striking, according to a nine-month study just concluded.

The experiment, conducted at the University of Southern California in Los Angeles on 72 male graduate students, dampens much of the enthusiastic belief in LSD (d-lysergic acid diethylamide) as a tonic for the personality.

On the other hand, intensity of an LSD experience is clearly related to personality, reported Dr. William McGlothlin, professor of psychology at USC, who is now also with the Rand Corporation in Santa Monica, Calif. Those who prize internal control and an orderly life generally "have no taste for the experience and tend to respond minimally," Dr. McGlothlin told SCIENCE SERVICE. But those who prefer a more unstructured, spontaneous, introspective, though not socially introverted life, react most intensely to LSD and show the greatest changes.

Subjects joined the experiment in response to an advertisement but did not know it was an LSD study at the time, said Dr. McGlothlin. Therefore they were different from students who would actively seek out an LSD experience, he said. Further selection came through a battery of personality tests. Those who had "doubtful profiles" were eliminated, as were individuals in psychotherapy and those with prior LSD experience.

Following selection, the 72 remaining volunteers were divided into three groups, only one of which got a normal dose of LSD. The other two were used as controls—one receiving amphetamine (a euphoric drug); the other a tiny dose of LSD (25 micrograms) comparable to a flake of bath powder.

All subjects took a full range of tests, including measurements of anxiety, attitudes, values, creativity and aesthetic sense, before and after drug administration. A third set of tests was given after six months to measure long range effects, if any.

Post-LSD changes were small, reported Dr. McGlothlin. The LSD group

showed a significant change on only one test, the "Ways-to-Live" scale. After three doses of LSD, they were more likely to choose a quiet contemplative philosophy over a "group action" or "progress through realism" approach. The change faded somewhat after six months, but another took its place, said Dr. McGlothlin. In its last battery of tests, the LSD group scored significantly higher than the other two groups on the self-perceptions, self-approval test.

Subjective reports of "wide-ranging" personality changes were considerably stronger than the tests seemed to indicate, said Dr. McGlothlin. Fifty percent of the LSD group said they had greater self-understanding and 45% reported they were less disturbed by little frustrations. Also many reported increased music appreciation.

However, 10 of the 24 LSD students reported no long term effects. These were primarily people with rigid, rather than flexible, personalities. The group that received only 25 mcg. of LSD also reported no effects. The dosage was too small. According to the tests, LSD did not make anyone appreciably more creative, said the professor.

Dr. Sidney Cohen, chief of psychiatry service at the Wadsworth Veterans Administration Hospital in Los Angeles and Dr. Marcella S. McGlothlin also participated in the study.

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## VETERINARY MEDICINE

### Man-Made Spring Produces Lamb a Week

► BY COOLING and darkening a barn so that it seems perpetually spring or winter and by a special hormone diet, scientists have induced selected sheep to mate out of season so that they produce lambs almost any week of the year.

Sheep in the fields usually give birth to lambs only once or twice a year—in the spring, or once in the spring and again in the fall.

Now scientists of Western Reserve University's School of Medicine, part of the University Medical Center of Cleveland, have changed the ewes' sexual pattern by creating spring-like conditions in their habitat and giving them a hormone in their diet or by injection.

This research provides scientists with a year-around study of fetal development in the uterus, said Dr. Aaron Leash, director of the school's animal facilities. Such studies will help scientists learn the causes of congenital defects in humans, with the hope of curing them.

With this study, now in its third year, of 100 purebred white Dorset sheep at a farm near the Medical Center, there were only three weeks in the last 12 months when no lambs were delivered.

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University of California

**NUTRITIONAL STUDY**—The stomach of a langur monkey which subsists almost exclusively on leaves, is being studied by Thomas Bauchop of the National Center for Primate Biology at the University of California, Davis. He hopes to determine the role of microorganisms and protozoa in the nutrition of the langur.