

Experiments Test Effects of LSD

By HARRY ENGEL
Collegiate Press Service

MINNEAPOLIS, Minn. — LSD, an hallucinogenic drug responsible for the dismissal of two Harvard psychologists, is currently being used by a University of Minnesota medical doctor to restore normal and abnormal performance in the nervous system.

Although small doses of the drug can do severe brain damage if improperly used, it is being administered here in medically supervised conditions with screened subjects and can cause no harm, according to Amedeo S. Marrazzi, pharmacology professor in charge of the experiment.

Marrazzi said the danger is in the misuse of LSD as in the case of two Harvard professors, Timothy Leary and Richard Alpert. The pair's unapproved experiments with the drug sent two students to mental hospitals. Mentally unbalanced persons can sometimes go completely insane under the drug.

Safety Factors

Marrazzi's experiment, approved by the UM College of Medical Science's advisory committee on the use of human volunteers, will not harm a person's mental equilibrium because of several safety factors, he said.

All volunteers are subject to a variety of medical checks, in order to find those with "potentially alarming disturbances of mental performance."

Volunteers are given a personality inventory test and are screened by the Clinical Psychology as well as by Marrazzi's test team. The volunteers also may be checked out with the psychiatry department when there is any doubt about using them as subjects.

Then, when the volunteer has been cleared, he is ready to receive a very small dose of LSD.

LSD, short for d-lysergic acid diethylamide, is derived from a fungus which grows on the grain of wheat and rye.

Weird Effects

If taken in excessive doses, it produces weird effects: vision and perception are altered drastically. One sees the world, as Time magazine described it, in "wide-screen three-dimensional vision," sometimes in Technicolor. Thought processes are released from their usual restraints so greater insights may develop, including deep spiritual feelings.

One Harvard student, after a session with the expelled professor, was almost killed as he walked in front of Boston rush-hour traffic. He said he thought he was God and that nothing could touch him.

Marrazzi said the aim of his experiment is to find out how the nervous system handles the impulses of mentally ill persons. By impeding the flow of impulses with LSD, he can imitate the situation in a mentally ill person's brain, he said.

Interferes with Perception

Marrazzi said LSD first interferes with normal perception, which operates through the memory part of the brain. Here, stored information is compared to new information received through the five senses and the brain interprets this. When a per-

son first sees a pencil, he records it; he will use his memory to recall what a pencil looks like and is used for the next time he confronts one, Marrazzi said.

LSD "closes the door" of transmission between memory and new information, he said. The results are a misinterpretation of the new information, commonly called an hallucination.

Thus, a pencil will no longer be seen as a pencil; it may be "misinterpreted as a dangerous weapon," Marrazzi said. This reflects the abnormal performance in an ill person's mind.

Marrazzi conducts his experiments in an 8-foot high, square, windowless "room" with three walls.

Upon entering the room the volunteer for the experiment notices this "room" first; it has sections that completely cover the walls, ceiling, and floor. A yard-long wooden bar attached to the far wall can be rotated clockwise or counter-clockwise by a dial and it is connected to an electrical recorder.

Wears Goggles

The volunteer sits in front of the "room" and puts on a pair of goggles. He is instructed to use the dial to rotate the bar in order to keep it parallel to the floor. He does.

But after a moment, the floor is no longer parallel to the bar; it is now inclined downward to the right and the volunteer must

adjust the bar until it is parallel to the floor again.

Marrazzi explained that the goggles produce the weird effects with the floor.

But shouldn't the volunteer have seen the weird shape as soon as he donned the goggles?

No, Marrazzi explained. This is a point of the experiment: human perception tells us that rooms are square, with floors and ceiling parallel to one another. Not until the brain "tired" did it allow the volunteer to see exactly what was transmitted to the eyes by the lenses in the goggles.

Distortion Recorded

During this time, the recorder has recorded the degree the bar rotated. This is known as the degree of distortion.

The volunteer is now given a small dose of LSD and subjected to the same experiment. Again, the degree of rotation is recorded.

In comparing the two experiments, it is discovered that during the LSD test, the intensity of distortion (how well a person can integrate his memory with the new information) is low, he said.

Marrazzi said his experiments with LSD could provide a breakthrough in diagnosing of supposedly mentally ill people, assessing the efficiency of present psychiatric treatments, and determining who is mentally unbalanced.

Cautious experiments on this controversial drug are also being carried on elsewhere. Some feel, as does Marrazzi, that clinical experimentation with LSD and other hallucinogens may open a whole new field in psychiatry and psychology and in the treatment of mental disturbances. But opinions are sharply divided.

Dr. Sterling Bunnell, Jr., a resident in psychiatry at the Mount Zion Medical Center in San Francisco, lists four criticisms of the drug:

- Usage of the drugs causes psychosis. The experimenter who takes the drug himself allows it to subtly influence his judgment and objectivity.

- It causes passiveness, introspection, and a dreamy state.

- Various religious practitioners regard it as sinful to explore feelings and emotion outside the church. Many subjects relate the psychedelic experience to a religious conversation.

- The long-term effect is unknown.

Many Arguments

Marrazzi claims that the drug can be used safely, however, and claims his experiment proves his assertion. He also points to the successful use of LSD in a controlled experiment with 5,000 persons at the Los Angeles Veteran's Hospital.

Psychotic reaction lasting over 48 hours was reported in less

than two-tenths of one per cent of the cases.

A student who has used LSD wrote of his experiences in the Daily Californian, at the University of California at Berkeley. He said that adults had lost the ability to think about the world in the terms of a child.

He added, "Fortunately, for us adults there is an avenue, however temporary, which bypasses social structure in its journey to heightened awareness and improved consciousness . . . with this artificial aid, I could once again open my eyes to the beauty in details and nuances of color."

But psychiatrists Jerome and Arnold Ludwig, writing in Comprehensive Psychology, cautioned against any use of LSD "just for fun." They wrote, "The fun-maker who takes it for a 'kick' most seriously jeopardizes his career as a human being."

So the controversy continues over LSD: medical blessing or curse. Most likely it can be both.

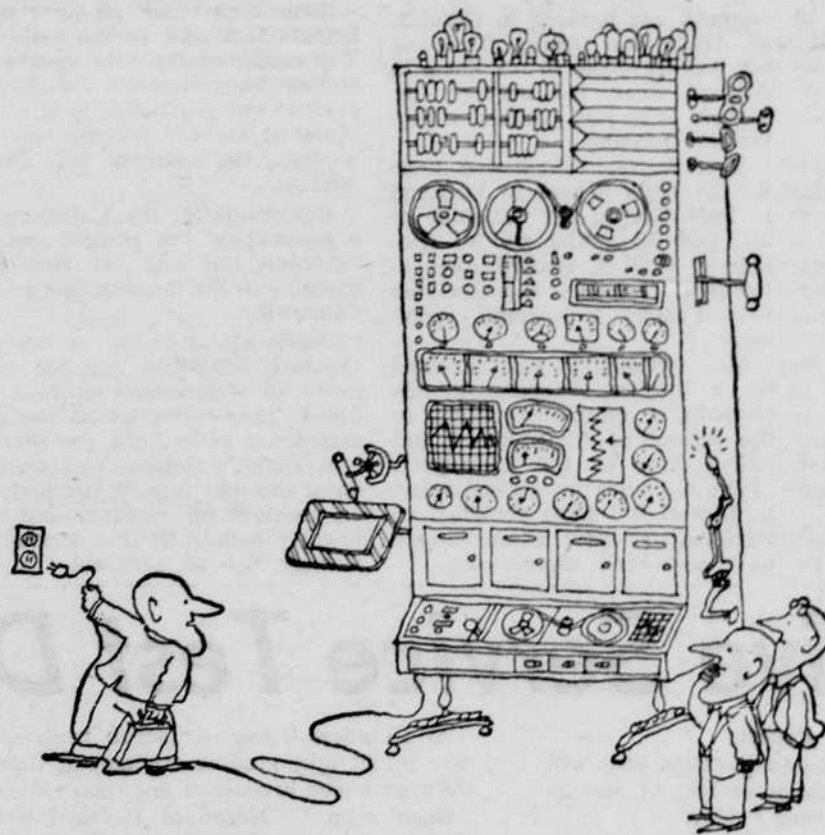
(Engle is a staff writer for the Minnesota Daily, where the story originally appeared.)

Oregon Daily Emerald

The Oregon Daily Emerald is published five times in September and five days a week during the academic year, except during examination periods, by the Student Publications Board of the University of Oregon.

Second-class postage paid at Eugene, Oregon 97403. Subscription rates \$5 per year, 12 per term.

"Let's unplug the computer, boys! Start thinking!"



Artist to Deliver Festival Lecture

"Art and Knowledge" will be discussed by New York painter and writer Fairfield Porter during a Festival of Arts lecture at 8 p.m. today in 150 Science.

An exhibition of Porter's works, including landscapes and portraits is on display in the lobby of Lawrence Hall. He studied at Harvard and the Art Students league, and later became associate editor of Art News magazine.

Porter is now teaching at the South Hampton Museum on Long Island. His exhibit, which was arranged through the Art Association of Reed College and the Tibor de Nagy Gallery in New York, will be displayed through March 7.

A lot of people believe that someday computers will do all their thinking for them.

Well, a funny thing is going to happen on the way to the future:

You're going to have to think harder and longer than ever.

Computers can't dream up things like Picturephone service, Telstar® satellite, and some of the other advances in communications we have made. Of course, we depended on computers to solve some of the problems connected with their development. But computers need absolutely clear and thorough instructions, which means a new and tougher discipline on the human intelligence.

And it will take more than a computer to create a pocket phone the size of a matchbook, let's say...or find

a practical way to lock a door or turn off an oven by remote telephone control, or to make possible some of the other things we'll have someday.

It takes individuals... perhaps you could be one... launching new ideas, proposing innovations and dreaming dreams.

And someday, we're going to have to find a way to dial locations in space.

Makes you think.



Bell System

American Telephone & Telegraph and Associated Companies