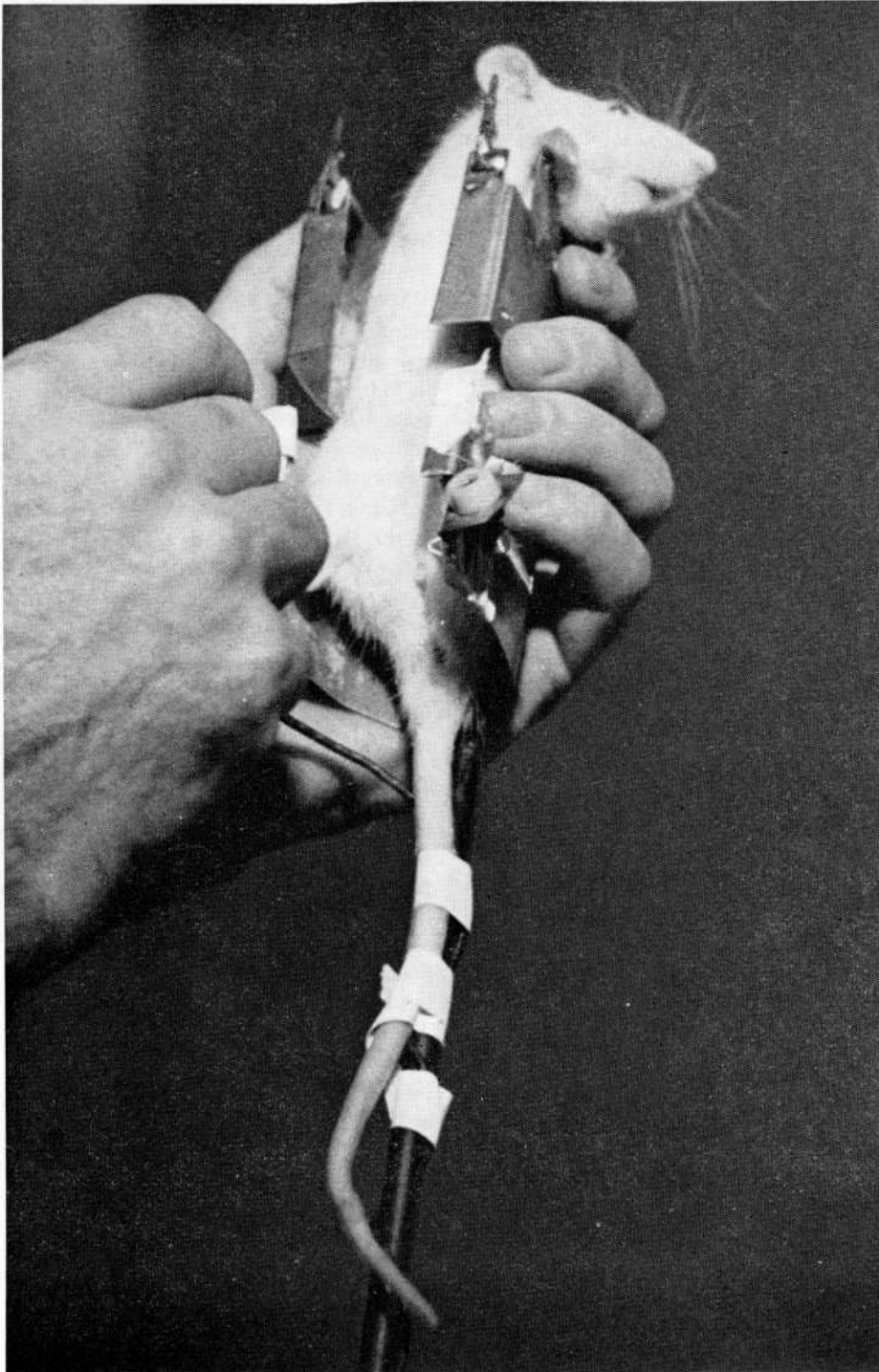# Those Dopey Rats

A mild-mannered psychology professor is conducting experiments with rats and drugs that may help solve some of the unknowns about drug addiction. Allowing the rats to work for their dope, he studies their reactions to discover dope's reward factor.

PHOTOGRAPHED AND WRITTEN By JIM G. ABBEE, '55

To help pre-determine what new drugs may prove addictive, rats are serving as the guinea pigs. Rat is placed in the cage and its feet are taped in place. Cage is equipped with needle that will allow the rat to inject itself with dope, if it so desires, by turning its head in the right way.

IN A SMALL ROOM on the top floor of the Pharmacy Building, experimentation is taking place that may produce some answers to the drug addiction problem.

Oddly enough, although the experiments concern drugs and are housed in the Pharmacy Building, they are being carried on by Dr. Harold Coppock, assistant professor of psychology, and his assistants, under a grant from the U. S. Public Health Service.

Officially the research problem is a 2-year project to try to pre-determine what new drugs may be addictive to human beings prior to placing the drugs on the market.

To carry out the research, Dr. Coppock is using white rats and automatic equipment that will record the movements of the rats. A hypodermic needle is placed so the rat can inject the morphine into himself or leave it alone, whichever he chooses.

If answers to two major questions are found they will go a long way toward making the experiments a success. Dr. Coppock wants to know how soon after the rat takes the self-injected morphine that the dope proves rewarding, and, from a physiological and psychological point of view, why the dope is rewarding.

Although the research is in its infancy, a couple of unusual developments have presented themselves (neither can be considered conclusive at this point): 1) rats which had never had a shot of morphine seem as pleased as addicts and immediatly start working for more—suggesting the possibility that it does not take a number of injections to create a desire, and 2) rats which are uncomfortable and upset resist morphine much better than healthy, comfortable rats—suggesting a complete reversal in the accepted reasons for drug addiction.

If either development should prove accurate, the findings could not be considered as proof that human beings would react the same way. But the hope is that the results may be of such significance as to warrant experimentation with humans later.

But whatever the outcome of the experiments is, Dr. Coppock, his staff, The Uni-
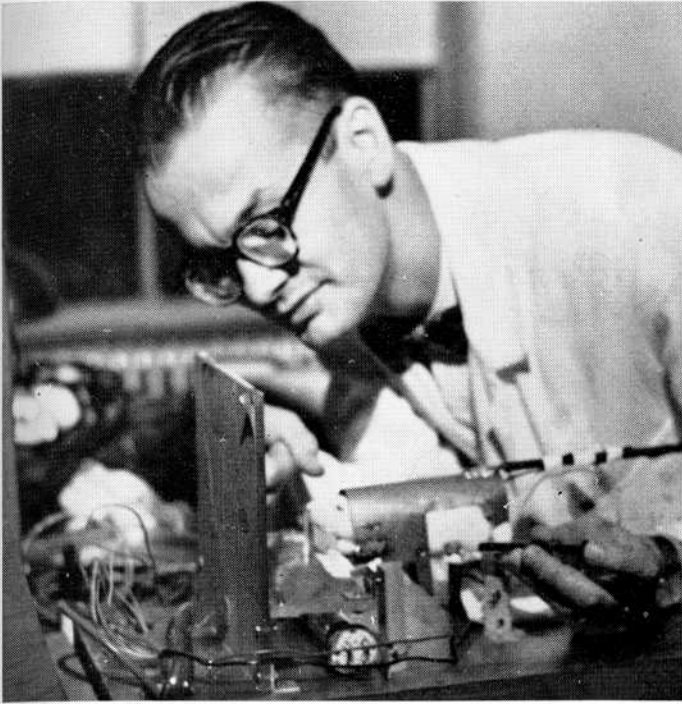
Dr. Harold Coppock checks automatic recording device before experiment begins. Photo-electric cell helps record movement of rat's head, indicating whether or not the rat is rewarded by the morphine injection.


Dr. Cecil Headlee, assistant professor of pharmacy, who is assisting in the experiments, prepares a morphine solution for next rat while Dr. Coppock studies the record of movement of last rat's search for dope.

versity of Oklahoma and the U. S. Public Health Service are trying to provide more knowledge for better living through research.

(Editor's Note: This story is only the preliminary for the main bout. No findings can be definite yet. But with the understanding that the *Sooner* wanted to show an indication of the research being conducted by University staff members, Dr. Coppock was gracious enough to permit this advance story. To let the reader follow the developments in the drug addiction research, the *Sooner* will report the interesting developments from time to time.)
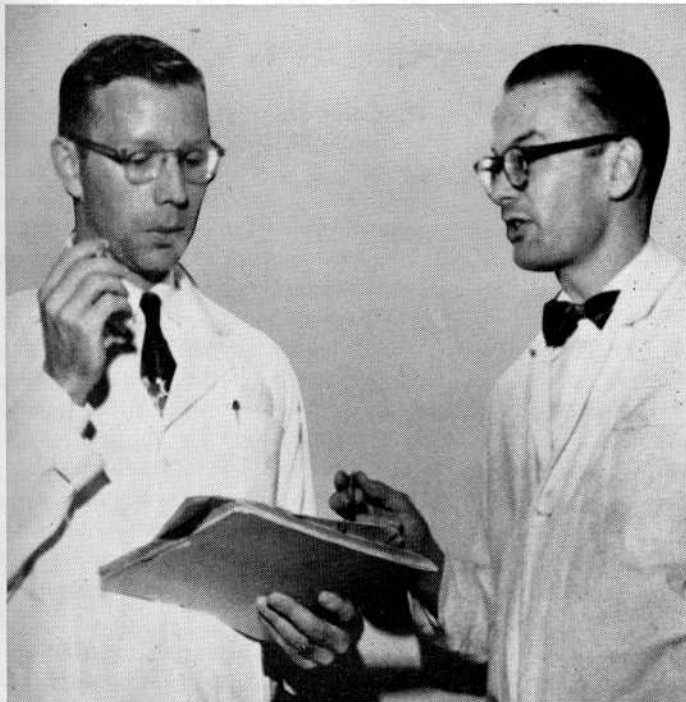
Time to consider the results of the day's experiments. Dr. Headlee and Dr. Coppock discuss what may be a new development. Purpose of experiment is to try to pre-determine what new drugs may be addictive.
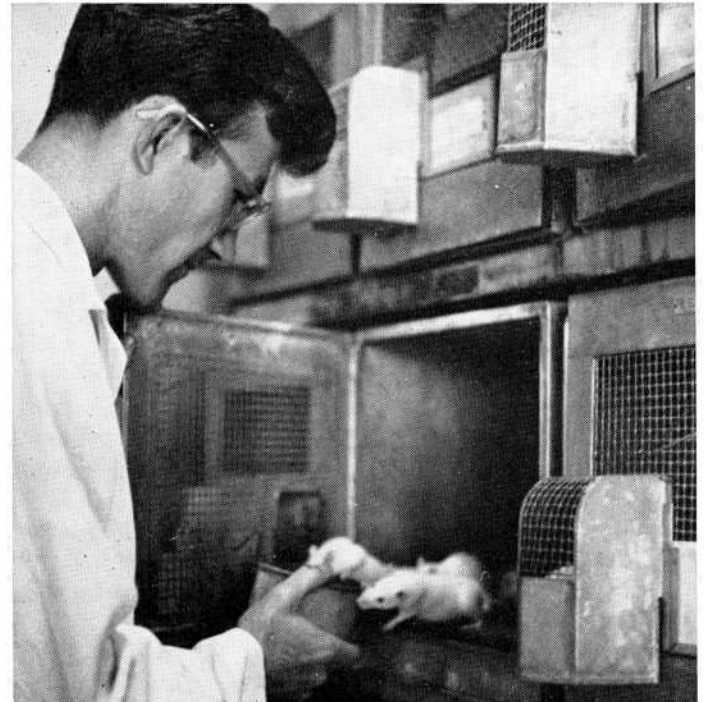
J. Paul Costeloe, graduate assistant in psychology, assists in the experiments and takes care of the rats. Fed once a day, the rats are carefully observed to make sure experiments are scientifically reliable.