

## PSYCHOLOGY

# Chronic Female Gamblers

► IF YOU picture the woman who plays poker in a gambling club a large part of her time as a maladjusted neurotic with a blind and unreasonable faith in Lady Luck, you will get a surprise from a scientific study of such women conducted by William H. McGlothlin as a graduate student at the University of Southern California.

The woman who haunts the gaming table is actually better adjusted socially, emotionally, and at home than is the average woman.

This result is based on a study of 31 women picked pretty much at random from the patrons of commercial card clubs at Gardena and Seal Beach, California. The women studied have an average age of 37 years. They play, on the average, 2.7 times a week, and their sessions last about five hours each.

The longest time any of them had put in at the poker table at one time was 48 hours, but 13 of the women had put in more than 18 hours in a session at least once.

Why do the women gamble so much? It is evidently not through any mistaken idea that they are making easy money from it. Most of the women say that they are fully aware that they lose more than half of the time and have been doing so for a number of years.

"It is quite possible," Mr. McGlothlin suggests in the *Journal of Consulting Psy-*

*chology* (April) "that it (playing poker) may contribute to good adjustment by combating boredom. In our society, many middle-aged women find that time weighs heavily on their hands, and the resulting boredom is often a contributing factor to conflicts in various facets of their lives.

"To the extent that the game of poker offers a stimulating activity to occupy the participant's time and interest, it may well be an adjutive factor."

A test rating belief in luck and superstition was taken by the 31 women. Those scoring high, it was found, did not tend to take more risks in the poker game or lose more often than those who relied more on their skill than blind luck.

Neither did those who received bad scores on adjustment tests tend to take more risks or lose more often than better adjusted women. However, it was found that those who are relatively poorly adjusted have the most faith in luck and superstition.

When a woman becomes completely immersed in an activity, whether it is a job, bridge, golf or poker, to the point where she is willing to spend all or a large portion of her available time at it, it is not surprising that she should have a minimum of worries, is not irritated by the people at home, and in general shows superior adjustment, Mr. McGlothlin concludes.

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## PUBLIC HEALTH

# Atomic Sterilization

► IONIZING RADIATION, such as comes from A-bombs, atomic reactors and fission products, will be used to sterilize drugs before it is used for sterilizing foods.

The reason is cost. The initial capital cost will be large for this method of sterilization, whether for food or for drugs. However, projected costs of such sterilization of penicillin promise to be much less than the costs of sterilizing the famous mold remedy by present methods.

This was pointed out by Maj. U. S. Grant Kuhn, US Air Force, and Lt. Col. Bernard F. Trum and Lt. Col. John H. Rust, both of the Army, in a report to the American Veterinary Medical Association meeting in Seattle. The three officers of the Armed Forces veterinary corps are attached to the agricultural research program being carried on by the University of Tennessee and the Atomic Energy Commission at Oak Ridge, Tenn.

Besides cost, other factors holding up commercial use of ionizing radiation for food sterilization are the need for further knowledge of possible toxic effects, the availability of suitable amounts of fission products to do the job, and the development

of methods to overcome undesirable flavor changes in the irradiated foods.

Most immediate practical application of the process, the three officers said, would seem to be pasteurization of dairy products, increasing shelf-life of certain foods without completely sterilizing them, and destruction of parasites and insects in foods.

The advantage of ionizing radiation for food sterilization lies in its ability to kill germs without raising temperatures appreciably. Fresh meats, fruits and vegetables could be prepackaged and then sterilized, and they would then have a long shelf-life without need for refrigeration. Dried whole eggs might also be treated by this process and then stored.

Some of the problems, however, come from the fact that apparently the germs, or microorganisms, in food are affected by direct hits of radiation. That is, either a particle or a quantum of radiation must pass through every cell or very near to it.

"This," the officers said, "is much like trying to shoot minnows in a rain barrel with a BB gun. It takes a lot of BB's. It takes a lot of radiation, too, to kill all the microorganisms."

For example, while 99.1% of germs in a suspension were killed by 71,000 rep of gamma radiation from radioactive cobalt 60, it took more than four times that amount, 289,000 rep, to kill 100% of the germs. An rep, or roentgen equivalent physical, is a unit of measure for radiation.

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## NEUROPHYSIOLOGY

## Seat of Emotions In Brain Discovered

► THE SEAT of the emotions in the brain has been discovered.

It is the brain spot that makes you feel scared if someone sticks a gun in your back. If you are lying quietly in bed and a doctor, unknown to you, touched this part of your brain with an electric current, you might feel as scared as if a wild lion were charging at you.

This brain center is also the seat of feeling of pain, and presumably of other, pleasanter feelings.

Its discovery has been announced by Drs. Jose M. R. Delgado, Neil E. Miller and Warren W. Roberts of Yale University, New Haven, Conn.

This seat of the emotions is located in the lower part of the brain. The Yale scientists find they can arouse emotions by electrically stimulating the hippocampal gyrus or the lateral nucleus of the thalamus, both in the lower part of the brain.

Since discovering this seat of the emotions, animals have for the first time been motivated to learn habits by electrical stimulation of the brain.

In one experiment, electrical stimulation of the emotion center in a cat's brain caused a temporary emotional disturbance so that the cat learned to fear a white box it previously had preferred and to jump from the white box into a black one. As long as three weeks later, the cat still feared the white box.

In other experiments, electrical stimulation of the emotion center in the brain caused hungry cats to learn to control their appetites and avoid food.

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## VETERINARY MEDICINE

## Synthetic Hormone Helps Cut Meat Cost in Half

► COST OF producing meat can be cut in half by giving food animals shots of a synthetic female hormone, stilbestrol, and feed supplements.

Tests showing this were reported by Dr. Loyal C. Payne of Iowa State College to the American Veterinary Medical Association meeting in Seattle.

"One large beef producer contends the cost of meat production may be lowered as much as eight cents a pound, bringing it to about half the present cost, under such a program," said Dr. Payne.

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