

Psychologist Teaches Cats to Love Rats

Comparative Psychology

Early Acquaintance Best, Chinese Scientist Finds

A KITTEN may grow up to be a battling ratter, or it may go through life as a peaceable friend of the rat tribe. It all depends on the kitten's early experiences in this world.

This is shown by a Chinese psychologist, Zing Yang Kuo, of the University of Chekiang, who has brought up 59 kittens in his laboratory and has closely observed the introduction of every one of them to rats and mice in varying circumstances.

In a report of his cat and rat studies, which will appear in the forthcoming issue of the *Journal of Comparative Psychology*, he tells how some of the kittens were put in isolated cages at an early age, and were shielded for the first week of life from knowing that a creature like a rat existed. Other kittens were given rats or mice for social companions almost from birth. Still other baby kittens got an early introduction to the race war between cat and rat by watching their mothers expertly dispatch rats. Some of the kittens were brought up to be vegetarians and others had a more liberal cat diet of meat and fish along with milk and rice.

And all these differences in their babyhood affected the kitten's outlook on the rat as a cat problem.

Environment Influences Cats

Of the 21 kittens raised in an environment where their mothers killed rats, 85 per cent of the kittens killed a rat before reaching the age of four months. Of the 20 kittens kept in a ratless environment, only 45 per cent killed rats without being taught. None of the kittens raised with rats ever killed one of its playmates, or any rat of its kind. Only three of the 18 kittens so raised killed other kinds of rats.

Being vegetarian does not make a kitten less keen as a rat-hunter, the

experiment indicated. But most of the vegetarian kittens would not eat the rats that they killed. In fact, after three to four months of a meatless diet, the vegetarian kittens refused any meat. Being hungry does not spur on a cat to rat-hunting the Chinese psychologist reports.

Their Behavior Complex

The cat is a small-sized tiger, equipped with a bodily machine fitted for capturing small animals, the Chinese psychologist points out. But the cat's potential career as a hunter is modified by its life conditions. The explanation that a cat hunts rats by "instinct" is entirely inadequate, according to this experimenter, who is "impressed by the fact that the behavior of the cat toward the rat is much more complex and much more variable than most psychologists would have thought."

The Answer Is In This Issue

Can *cats* be taught to love rats? p. 114—Is it possible for *man* to take *nature's* place as *rainmaker*? p. 115—Will *clock pendulums* be *obsolete* soon? p. 116—What new *disease* is affecting *train dispatchers*? p. 118—Were *Eskimos* originally *Indians*? p. 119—What is responsible for *increases* in death rate from *appendicitis*? p. 120—To what *disease* are poisonous *snakes* susceptible? p. 121—Who was *Greece's* first *lawgiver*? p. 122—Are *botanists* solving the problem of *missing link* plants? p. 124.

The purpose of his investigations, which are still in progress, is to understand animal behavior sufficiently so that with all factors taken into account, an animal's behavior can be predicted.

"Our study shows that kittens can be made to kill a rat, to love it, to hate it, to fear it, or to play with it," he concludes. "In the future, with more refined methods, with more thorough investigation in this direction and with more knowledge of the physiology of the cat's behavior, we should be able to predict in mathematical terms how a given cat will react to a given rat at a given moment."

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Where is the Noise?

THERE is little excuse for pedestrians who become confused by the honking of automobile horns to right and left of them. In fact, in an office of a dozen telephones one should be able to tell readily which is ringing.

These are some applications of tests conducted by Dr. Donald A. Laird and Walter G. King in the Psychological Laboratory at Colgate University, Hamilton, N. Y., and reported in the *Journal of the Acoustical Society*.

Dr. Laird has found out just how acute is man's sense of the direction from which sound comes; and it is surprising what slight changes in direction people can detect. For example, if an automobile horn or telephone 100 feet away is moved three feet to either side a person should detect the change 80 times out of 100 trials.

In the experiments a head clamp held the subject still and a circular rule about a yard from the head and graduated in degrees gave the direction. A small ticker timed by a pendulum made the test noise.

Psychology

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