



Tame or Familiar?

► FREQUENTLY we hear of a person living on the farm or in the woods who has "tamed" some wild animal not usually kept as a pet, like a porcupine, or a groundhog, or a skunk, or even a toad. We may also hear of animals in a given locality being so "tame" that one can walk right up to them.

Both these uses of the word are somewhat inaccurate. Ordinarily timorous or cautious animals, like deer or beaver, that let you approach them should properly be called fearless. Actually, such fearlessness is the normal attitude of ani-

mals toward man unless he has given them cause to regard him as a predator, and in the same class with wolves and wildcats.

The person with a "tame" wild animal as a rule gets no further than having offerings of food accepted, or perhaps being permitted to stroke its fur or scratch its ears. This degree of intimacy is tolerated, and even apparently enjoyed, by a great variety of animals, which otherwise live their normal wilderness lives. Naturalists refer to such animals as "familiar" rather than "tame".

A step toward real tameness comes if the animal consents to share quarters with its human friend. That is an approach to what zoologists call commensalism, which merely means living in the same house. As a matter of fact, some of our supposedly domesticated animals, cats for example, though housemates of man for scores of generations, are really no tamer than that. They accept our food, affection and shelter, and give us nothing in return but their pleasant company. The same can be done with prairie-dog or armadillo, starting from scratch.

An animal may be regarded as fully tamed when it makes some tangible return to its human partner for the favors it receives, such as helping in hunting, or guarding property, or bearing bur-

dens. Dogs illustrate this behavior phase very well, and so do horses. Some cats approach this level, but they are exceptional individuals.

Wild animals can be fully and satisfactorily tamed. Wild horses, after proper handling, become good saddle and draft animals. Wild elephants are constantly being rounded up in the Asiatic tropics, and live long lives of service to man. Hawks and cheetahs, the very symbols of fierce independence, are captured and tamed into excellent hunting servants.

There is thus no question of the tamability of wild animals; only, before we call an animal tame we should be sure its behavior towards man qualifies it for that title.

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PHYSICS

Universe's Ultimate Forces Probed

► AN UNDERSTANDING of the ultimate forces of the universe promises to result from the hundreds of millions of electron-volts that atomic physics is about to let loose in new atom smashers.

This may be more important than the development of the atomic bomb.

Dr. Robert J. Oppenheimer, director of the Los Alamos Atomic Bomb laboratory when the bomb was first made, also predicted to the American Physical Society meeting at the University of California:

1. Fundamental revision of present theories of matter.
2. Extension of new knowledge to other fields of science.
3. Discovery of new elementary nuclear particles that will give a better picture of the atom and the principles upon which it works.

Man is now about to duplicate nature's most powerful atom-smashing, the cosmic rays that consist of protons hurtling into the earth's atmosphere from outer space, crashing into atmospheric atoms and causing birth of an atomic particle called a mesotron. It takes about 250 million electron volts to knock a mesotron out of another proton, and atom smashers are now reaching that energy and beyond.

Particles now known to be a part of an atom were listed by Dr. Oppenheimer as the electron, proton, neutron, positron, mesotron, gamma ray, and a hypothetical neutrino for which evidence has not been found.

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