

Can Animals Think?



By EUGENE LINDEN Sunday, Aug. 29, 1999

The first time Fu Manchu broke out, zookeepers chalked it up to human error. On a balmy day, the orangutans at the Omaha Zoo had been playing in their big outdoor enclosure. Not long thereafter, shocked keepers looked up and saw Fu and his family hanging out in some trees near the elephant barn. Later investigation revealed that the door that connects the furnace room to the orangutan enclosure was open. Head keeper Jerry Stones chewed out his staff, and the incident was forgotten. But the next time the weather was nice, Fu Manchu escaped again. Fuming, Stones recalls, "I was getting ready to fire someone."

The next nice day, alerted by keepers desperate to keep their jobs, Stones finally managed to catch Fu Manchu in the act. First, the young ape climbed down some air-vent louvers into a dry moat. Then, taking hold of the bottom of the furnace door, he used brute force to pull it back just far enough to slide a wire into the gap, slip a latch and pop the door open. The next day, Stones noticed something shiny sticking out of Fu's mouth. It was the wire lock pick, bent to fit between his lip and gum and stowed there between escapes.

Fu Manchu's jailbreaks made headlines in 1968, but his clever tricks didn't make a big impression on the scientists who specialize in looking for signs of higher mental processes in animals. At the time, much of the action in animal intelligence was focused on efforts to teach apes to use human languages. No researcher cared much about ape escape artists.

Consider the time that Charlene Jendry was in her office at the Columbus Zoo and word came to her that a male gorilla named Colo was clutching a suspicious object. Arriving on the scene, Charlene offered

Colo some peanuts, only to be met with a blank stare. Realizing that they were negotiating, Charlene upped the ante and offered a piece of pineapple. At this point, without making eye contact with Charlene, Colo opened his hand and revealed that he was holding a key chain, much in the manner that a fence might furtively show a potential customer stolen goods on the street. Relieved that it was not anything dangerous or valuable, Charlene gave Colo the piece of pineapple. Astute bargainer that he was, Colo then broke the key chain and gave Charlene a link, perhaps figuring, "Why give her the whole thing if I can get a bit of pineapple for each piece?"

If an animal can show some skill in the barter business, why not in handling money? One ape, an orangutan named Chantek, did just that during his years as part of a study of sign language undertaken by psychologist Lyn Miles at the University of Tennessee. Chantek learned more than 150 words, but that wasn't all. He also figured out that if he did chores such as cleaning up his room, he could earn coins that he could later spend on treats and rides in Lyn's car.

Chantek's understanding of money seems to have extended far beyond simple transactions to such sophisticated concepts as inflation and counterfeiting. Lyn first used poker chips as the coin of the realm, but Chantek decided that he could expand the money supply by breaking the chips in two. When Lyn switched to using washers, Chantek found pieces of aluminum foil and tried to make imitation washers that he could pass off as the real thing. Lyn also tried to teach Chantek more virtuous habits such as saving, sharing and charity.

Gail Laule, a consultant on animal behavior with Active Environments Inc., uses rewards to encourage an animal to do something, but also recognizes that animals are more than wind-up toys that blindly respond to tempting treats. "It's much easier to work with a dolphin if you assume that it is intelligent ... That was certainly the case with Orky," says Laule, referring to her work with one of the giant dolphins called orcas or killer whales. "Of all the animals I've worked with, Orky was the most intelligent ... He would assess a situation and then do something based on the judgments he made."

Like the time he helped save a member of the family. Orky's mate Corky gave birth in the late 1970s, but the baby did not thrive at first, and the keepers took the little killer whale out of the tank by stretcher for emergency care and feeding. Things began to go awry when they returned the orca to the tank. The boom operator halted the stretcher when it was still a few feet above the water. Suddenly the baby began throwing up, through both its mouth and its blowhole. The keepers feared it would aspirate some vomit, which could bring on a fatal case of pneumonia, but they could not reach the baby dangling above.

Orky had been watching the procedure, and, apparently sizing up the problem, he swam under the stretcher and allowed one of the men to stand on his head. This was remarkable, says Tim, since Orky had never been trained to carry people on his head like Sea World's Shamu. Then, using the amazing power of his tail flukes to keep steady, Orky provided a platform that allowed the keeper to reach up and release the bridle so that the 420-lb. baby could slide into the water within reach of help.