

Of course there is a great gap between the use and slight modification of naturally-occurring objects and the simplest tool and weapon kit of the most primitive man. Even the stripping off of leaves from a branch so that it can be used to fish for termites is a far cry from the manufacture of stone or bone cutters, borers, scrapers, or other simple tools, or from the production of stone or bone axes, spear heads, arrow heads, or other simple weapons.

(c) Intelligence

Various animals have been singled out for their "smartness," including dogs, horses, dolphins, etc. Some animals have been trained to do rather remarkable things. But what are we to make of the following, quoted from *Sports Illustrated*

Psychologists at Holloman Air Force Base in New Mexico, training 80 chimpanzees in symbol recognition for space research, are teaching their pupils games involving shapes, colors and numbers. A chimp named Big Mean fleeces all corners, including a visiting Air Force general, at a game of squares and triangles. Zsa Zsa is fantastically accurate with numbers -- when surrounded by admiring kibitzers. If an audience walks away, her score nosedives.

Food pellets and mild shocks were originally used to train the chimps, but the psychologists have since discovered that competition is a strong motivating factor. Big Mean and Pale Face (a pallid chimp who, equipped with green eyeshade, would cause no comment at Las Vegas) were put in adjoining glass booths to play an electronic version of ticktacktoe. The chimps learned that they were competing almost as soon as they learned to get three across. If one lost too often, he would stamp and scream and pound the window facing his opponent.

When Pale Face began to win every game, Big Mean no longer wanted to play. Pale Face stopped smirking and threw a few games to keep Big Mean interested. For those who may find the data useful, a recording tape shows that Pale Face discovered one win in every five was enough to keep the sucker in the game.

Just how human is he, wondered the psychologists. Will a chimp champ like Pale Face play the game for its own sake? They disconnected the reward circuit. The game went on, lights flashed, the loser scowled, the 'reward' signal went on, but no banana pellet tumbled out of the slot.

Pale Face pounded the machine. He played again. He decided the machine had stopped paying off. He quit.

The kid had turned pro.