ANIMAL PSYCHOLOGY

Apes Can be Philanthropists As Well As Beggars

Some Voluntarily Give Food to Others Though Strong Enough to Have It All; "Money" Given More Readily

CHIMPANZEE society has both its liberal givers and its chronic beggars, to judge from a study of food-sharing behavior reported by Dr. H. W. Nissen and Dr. M. P. Crawford of the Yale University Psychology Laboratories at a meeting of the New York branch of the American Psychological Association at Princeton. Some chimpanzees will never beg food of another; others will beg whether or not they have food of their own at hand. Some never respond to a plea for alms, and others, even though they are the strongest of the group, will give voluntarily.

The experiment was designed to determine if chimpanzees ever share their food under conditions of non-compulsion and when no direct or immediate gain for the animal who shares is involved. The question of altruistic behavior among higher animals is one of major interest in social science and one in which little progress has been made, due to lack of opportunity for controlled experiment. The investigators in this study found few examples in chimpanzees of what is called altruistic behavior in humans.

Eight chimpanzees ranging in age from four to nine years were observed in different combinations of two during ninety experimental periods. Two subjects were placed in the same cage or in adjoining cages separated only by iron bars. One or both were given food, or tokens which could be exchanged for food by inserting the tokens in an apparatus attached to one of the cages. One of the most striking results when the animals were in the same cage was the discovery that the most dominant individual, that is, the most aggressive and usually the larger and stronger, did not always get the major portion of food, even though he could have had all. An interesting incidental observation was the tremendous interest which certain individuals showed in the eating activities of their companions; they would forget to eat themselves while they intently watched the other, even imitating the jaw and lip movements.

Teasing behavior was common among the animals. Some enjoyed offering food through the bars to a begging companion and withdrawing it quickly just before it could be grasped. Such behavior was frequently accompanied by stomping and hooting on the part of the victimized animal and sometimes resulted in a temper tantrum. Some individuals begged food, placed it out of reach in their own cage, and immediately begged for more. Tokens were relinquished more frequently and more readily than was the kind of food which could be obtained with them. The degree of hunger apparently had little effect either on begging or on responsiveness to begging. In general, the begging behavior followed a characteristic pattern, with individual variations.

Dr. Nissen and Dr. J. H. Elder reported on a study indicating that the length of time a chimpanzee can remember into which of several boxes food has been placed depends both upon the amount of reward he has previously received and the amount which he sees placed in the box. In this study of "delayed response" the animal observes food being placed in one of two boxes. A curtain is lowered cutting off the animal's view. After an interval the curtain is raised and the chimpanzee can obtain the food if he selects the right box.

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MEDICINE

Pain of Inoperable Cancer Relieved by Cobra Venom

PATIENTS suffering from inoperable cancer were definitely relieved of pain and felt better when treated with injections of suitable doses of cobra venom, Dr. David I. Macht of Baltimore reported to the American Physiological Society meeting.

Those patients who had been getting morphine for their pain were able, with the aid of the cobra venom, to get along with much smaller doses of morphine or to do without it altogether. This does not, however, mean that the snake poison is a cure for cancer. It merely relieves the suffering in cancers that are too far advanced to be removed by operation.

"All the evidence in hand indicates that cobra venom relieves pain in much the same way morphine does, through its action on the cerebrum, but without exerting the narcotic effects of the latter," Dr. Macht said.

Dr. Macht's interest in the use of cobra venom as a medicine was stimulated by work being done at the Pasteur Institute, Paris, where minute doses of this snake poison, properly standardized and sterilized, have been claimed to relieve the pains caused by inoperable cancers and other malignant tumors. For the past six months Dr. Macht has been collaborating with two Baltimore surgeons in the use of cobra venom for inoperable cancers. In nearly three-fourths of the small series of cases so far studied, the results have been decidedly favorable so far as relieving pain is concerned. No curative effect, of course, is claimed.

Dr. Macht described experiments showing that the pain-relieving action of cobra venom is not due to a local anesthetic effect but to its action on the nerve centers in the brain.

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MUSEUMS

New Exhibits Portray Workings of Human Body

See Front Cover

"READING him like a book" becomes more than a figure of speech to the visitor in the new Cabana Hall of Man at the Buffalo Museum of Science, recently opened to the public. One of the most striking of the exhibits consists of two anatomical models split into series of thin sections which can be separated, book-fashion, permitting the student to "look at his own insides" not merely along one plane but at any place he wishes, either from right to left or from head downward.

The entire hall is devoted to the anatomist's and physiologist's task of showing how the human body works and how it may best be guarded against malfunction and disease. The central exhibit is a replica of the "Transparent Man," of Century of Progress fame. There are other exhibits showing the pumping action of the heart, the production of voice sounds, the course of blood corpuscles, etc. One of the most ingenious is an electrically driven human skeleton.

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