Prof. Shepherd's Experiments With Two Intelligent Apes

"This intelligent chimpanzee wrote upon a typewriter with great solemnity and apparent self-satisfaction."

Their Clever Tricks and Man-Like Actions Lead Him to Conclude That They Have a Low Form of Reasoning, Crude Powers of Ideation, Sympathy and Even a Sense of Humor

IT is always interesting to know just how much the great apes, who resemble men so strongly in appearance, approach us in mental make-up.

Some men may still be heard to express an opinion that monkeys and apes are not intelligent at all, a superficial view generally based on the fact that they are less docile than dogs and horses, but scientific observation tends to place the man-like apes continually nearer to man in the mental scale.

Professor W. T. Shepherd, of Waynesburg College, has been making a detailed examination of the two well-known chimpanzees, Peter and Consul, who have delighted large audiences by their exceedingly human behavior on the stage. The professor studied the conduct of the two distinguished actors upon the stage and also held an examination of them in private, questioning their keepers and testing the abilities of the actors by personal intercourse.

Professor Shepherd's observations are exceedingly interesting and give the two chimpanzees a very high place in the intellectual scale. The conclusions he draws may be summarized as follows:

1. The very clever and man-like actions of the apes are partly accounted for by their superior motor-equipment, so nearly like that of man, which enables them to move with speed and accuracy, to turn quickly, to seize objects with their hands, and to adapt their bodies and limbs to many different attitudes in a way not possible to other animals.

2. The training which show animals receive accounts for many of their tricks, but the apes exhibit an ability to do things which could not be learned by other animals, however teachable.

3. The semi-erect carriage of the apes is of great importance and enables them to perform acts which would be impossible to other animals.

4. There are indications of intelligent imitation in the mental make-up of the chimpanzees, a decidedly human characteristic.

5. There are indications of a low form of reasoning or of crude ideas in the apes.

6. There are indications of more human-like emotions in these apes than monkeys such as the Rhesus manifest, e. g., sympathy and a sense of humor.

7. They show superior capacity for intelligent reactions to that of any of the lower order of animals.

8. With all allowances made, the apes are superior in intelligence to all subhumans and so are nearer to man than any of the other lower animals.

Professor Shepherd describes his experiments in the Journal of Animal Behavior. First he examined the chimpanzee Peter, who dressed like a man, sat down to a table, put on a napkin and ate food with a knife and fork. After eating, he struck a match, lighted a candle, lighted a cigarette and smoked. He gave his keeper, McArdle, a light for the latter's cigarette from his own.

Upon command from the keeper, the ape danced on the stage fairly well, much like a man, a sort of jig-dance.

When roller-skates were put on his feet he skated around the stage skilfully. He appeared to skate as well as a girl whom he chased around the stage.

The animal got upon a bicycle himself and rode it around the stage. He chased the girl around the stage while riding the wheel. While riding he drank water from a cup handed him. Then he skilfully rode between a number of bottles and cut a sort of figure 8 while riding between the bottles. The ape picked up a bottle and drank out of it while riding.

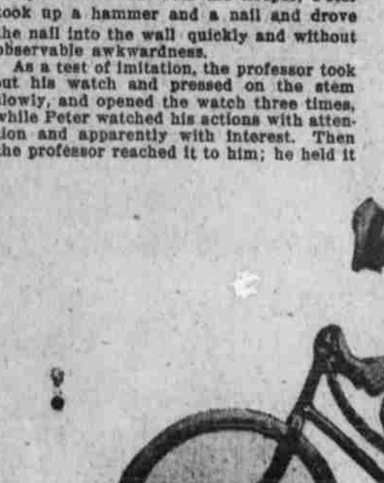
The animal rode the bicycle up an inclined plane on the stage. The professor noticed that he always increased his speed just before coming to the inclined plane.

After performing these feats Peter undressed and went to bed, very much like a man does.

Upon command from the keeper, Peter took up a hammer and a nail and drove the nail into the wall quickly and without observable awkwardness.

As a test of imitation, the professor took out his watch and pressed on the stem slowly, and opened the watch three times, while Peter watched his actions with attention and apparently with interest. Then the professor reached it to him; he held it

"Peter was clever enough to put on increased speed before starting to ride his bicycle uphill."



"The chimpanzee Peter used roller skates very skilfully, exhibiting once more his highly organized motor equipment."

and pressed on the stem correctly several times, as if to open it. However, he did not press hard enough, and the watch did not open. He thereupon attempted to open it with his finger nails. The keeper stated that the ape had not received any training in that act.

"I held out a writing tablet and a pencil to Peter," says Professor Shepherd. "He at once seised them and began scribbling, i. e., making irregular marks on the tablet. I made, in his sight, the letter T; a very plain T, with simply one vertical and one horizontal stroke of the pencil. The ape made a rather poor T the first time shown. He also made a W when I showed him once. Peter seemed to like to use the pencil and tablet."

Upon being ordered by his keeper, the animal put a handkerchief around Professor Shepherd's neck and tied it quickly and correctly when told to do so. He also untied the knot quickly.

He came and slapped the professor on the lower limb when the keeper bade him, though apparently with some reluctance. The animal would lie down and sit up when ordered to do so.

When told to do so, Peter articulated the word "mama." The ape spoke the word something like a foreigner would speak it. "I noted, however," says Professor Shepherd, "that the wife of the keeper pressed her fingers against the ape's under lip when he spoke the word mentioned."

The writer then attempts to analyze the factors in the apparently superior intelligence shown in the actions of the ape just recited. In the first place he sees in the superior motor-equipment of the animal one of the principal factors. Peter's comparatively perfect hands enabled him to use the knife and fork in eating and to handle a cup in drinking. His man-like lower limbs, his hands and his upright figure enabled him to ride the bicycle, to pick up a bottle and drink while riding, etc. His superior motor-equipment was also, as it seems to the writer, a principal factor in such feats as driving a nail, tying a handkerchief in a knot and untying it, etc. Dogs and other animals, if they had the intelligence, lack the requisite motor-apparatus to do such acts.

Another principal factor in all these acts was, doubtless, training. We know that horses, dogs, and even pigs, may be trained to do many feats and that ability to learn is not entirely equivalent to intelligence.

"Peter appeared to be laughing, but it is impossible to say just why."

In the writing by the ape his man-like hands, together with training, probably account for the facility with which he performed this human action, though imitation is possibly a factor here. What accounts for his seeming eagerness to mark on the paper might, however, be an interesting question. It would be interesting, also, to test how far the ape might be taught to carry his writing. Investigation in this line is still very incomplete.

Peter's articulation of the word "mama" was possibly quite mechanical and parrot-like, perhaps not understood by himself. Still, it would be interesting, the professor observes, to test how far such speaking by apes might be carried.

Peter's correct attempt to open the watch appears to the investigator like intelligent imitation. However, though the keeper assured the professor that the ape had had no training in that act, the scientist is inclined to doubt the statement. Then, perhaps, we could account for the reaction by the ape's hands, his training and the well-known curiosity of all monkeys. If the veracity of the keeper can be relied upon, we have here, as it appears to the writer, a case of intelligent imitation.

"In the matter of the ape increasing speed to ride up the inclined plane, if training does not account for it, we appear to see evidence of something very like ideation or reasoning of a low order," comments Professor Shepherd. "If, in this instance, ideas are present, they are perhaps what Hobhouse has named practical ideas, i. e., crude and unanalyzed ideas. The writer is inclined to believe that the latter, together with motor-equipment and training, are the factors involved."

Consul, the other ape observed, did most of the feats which Peter had done, such as putting on a napkin and eating at a table, getting upon a bicycle and riding around the stage, riding between nine bottles, riding up an inclined plane. Consul did these acts in a similar manner.

The latter ape also performed some other feats. He poured out his coffee, picked his teeth, cleaned his teeth with a brush, cleaned his tooth brush. He rode a wheel with a lamp on his head, held by himself while riding; he bored with an auger, put the rounds in and fitted together a ladder, with some help. He took a tablet and pencil and wrote, or the keeper said he wrote; but the professor could not make

"Consul threaded a needle, showing a remarkably human ability to use the hands."

out what he wrote. He took down the receiver of a telephone and listened, or appeared to listen. The ape used a typewriter, that is, he pressed on the keys, so far as the investigator could judge.

Consul threaded a needle, cut paper into strips with scissors. He took a key and locked and unlocked a padlock, and did other acts requiring similar intelligence.

These acts by Consul, like similar acts by Peter, are perhaps accounted for principally by the animals' motor-equipment, erect carriage and training.

"Some of them, such as riding up the inclined plane and increasing his speed to go up, again raise the question of ideation or a lower form of reasoning in the animals mental make-up," observes the scientist.

The professor did not note in Consul the good nature and sympathy shown by Peter. The former ape showed the brute in him by a certain roughness of manner and by not obeying his keeper very readily.

Peter, on the other hand, showed evidences of affection for his keeper by such acts as putting his arm around the latter in a very human-like manner and kissing him. When the professor questioned Peter's keeper as to the sympathy and good humor shown by apes, the keeper, in the ape's sight, pretended to have hurt his hand, whereupon Peter went to him, put his arm around McArdle and by his acts gave very evident signs of ape sympathy. Peter acted in a similar manner when the professor also pretended to have hurt his hand.

It was Peter who gave the strongest evidence for the argument that the chimpanzee possesses a sense of humor. After the chimpanzee had written something on a slate he tried to hide it as if taking a malicious pleasure in puzzling the investigators. There was also at times an expression on his face very much like a human laugh, but it would be rash to assume that it was from the same source without further investigation.

What the Chinese Can Teach Us About Marriage

THAT young men and women of the civilized countries are physically ready for marriage many years before they are financially ready to undertake its responsibilities, is now given as the cause for the increase of the social evil with its train of illegitimacy, disease and childlessness.

Students of social betterment have found that the confirmed bachelors and spinsters who are apparently shirking duties of privileges of marriage and child-birth, do so not because of disinclination or preference, but rather because of lack of sufficient incomes to warrant an early, natural and happy marriage.

Sociologists, college professors and leaders of young people's organizations have for many years deplored the decrease in early marriages. They have urged young men to marry and trust to luck and hard work for the bread supply. They have asserted that one love-affair in every life predominates all others, that when this has come it is time to marry, as love is likely never to come with the same force again. Yet all of this, though true, cannot persuade a far-seeing young man or girl to take the venture on a salary of twelve dollars a week.

In China it is the parents of prospective bridegrooms who make the arrangements for the marriage of their sons. They aid and supervise the choice of a wife and carry on all negotiations for the dower of the bride.

After the marriage ceremony the young bride is obliged to take up her abode in the home of her father-in-law. Her husband's living and her own are thereby guaranteed and the bridegroom usually serves in his father's business. After a certain period he becomes the sole means of support, the parents always retaining however the direction of the home, until, in turn, a younger generation is married, apprenticed, and ready to take the reins of support.

Among the Caucasian races a girl is physically ready for marriage between the years of seventeen and twenty, and a young man from nineteen to twenty-two. Instead, however, of the majority of marriages happening at these ages we find them along in the very late twenties and early thirties, owing to the fact that young men cannot establish themselves in sufficiently remunerative work until they are nearly thirty.

The solution of the problems involved in the increasing childlessness per capita, in the disappointed lives, in much of our younger life may be found in applying the best of the Chinese principles.

This would mean that father must shoulder the responsibility of equipping his son for a certain earning capacity in his own or some other trade before the son passes the age of twenty; that the father must see to it that the son earns a marriageable salary at twenty or supplement it from his own; or if these steps are not possible he must take under the protection of his own roof his son's new bride until the son himself becomes a self supporting father and in turn takes on the responsibilities of fatherhood.

Following such a scheme of things a college-trained man would have to graduate from his studies at about nineteen years of age and enter immediately on his life work. In a year or two he would be in a position to marry with some degree of safety for his bride. He would obtain some financial assistance from his father if that were necessary. This would then make things as in the old days, when many girls were married at sixteen and when parents were not in such a great hurry to shunt their young offspring out to shift for themselves.