



PORTLAND, OREGON, SUNDAY MORNING, FEBRUARY 6, 1910

The Monkey Mind Like Man's



Photo
by
Gatchess

Prof. Lightner Witmer, a leading
investigator of the monkey mind.



An Almost Human Expression

The Almost Human Intelligence That Science Now Attributes to the Simian

THE most amazing development in the youngest and most promising department of science, practical psychology, has suddenly come out of the recent and startling researches into the yet more novel department of animal psychology.

No less an authority than Professor Lightner Witmer, director of the psychological laboratory and clinic of the University of Pennsylvania and editor of the Psychological Clinic, has professed the belief that the monkey has a mind like man's, undeveloped, it is true, but capable of surprising things when educated or, to use the more familiar term, trained.

So immensely important are the discoveries already effected that Professor Witmer and his associates are now in the midst of much more extensive observations and experiments than have been surmised even by the scientific world. What they will discover is, of course, a matter for mere conjecture. Yet, from what they

have already learned, it is not too much to say that the real feature is the pronounced resemblance of the monkey mind to the reasoning faculties of human beings.

The surprising feature of all these investigations, according to the expressly stated opinion of Professor Witmer, is that the more than thorough series of laboratory experiments is resulting in flat contradiction of the deductions as to animal intelligence made by field observers.

It seems to be well within the mark of discretion to aver that these exceptional investigations are opening a new epoch in man's comprehension of the animal world about him, and, more vitally important, of himself.

IN MAKING public some of the recent work done by his associates and himself, Professor Witmer expressly stated that their inquiries have no application to the doctrine of evolution. He said:

"The study of the psychology of the apes can have no bearing on the problem of the missing link. This is a biological problem, and the question is one of the evolution of the physical structure of man from the lower animals."

The nature of the exhaustive experiments now under way, as explained by Professor Witmer, is radically different from those in use anywhere else.

"The experiment," he explains, "which Dr. William H. Furness, 3d, and I have undertaken introduces a new method of studying the behavior and mentality of the lower animals.

"Hitherto laboratory experiments in animal psychology have been almost wholly confined to the employment of various devices, in the shape of mechanical problems, which the animal has been compelled to solve in order to obtain food. He has usually solved the problem at first by accident. Whether other animals, watching a successful procedure of this kind, are able to imitate what they have seen has hitherto been an open question. One investigator denies that even the monkeys are able to imitate, and is inclined to limit imitation as an instinct to the human being.

"These laboratory experiments flatly contradict the field observers, who are inclined, perhaps, to overestimate the intelligence of the animals. There seems to be good reason for believing, however, that the results of laboratory

experimentation have very decidedly underestimated animal intelligence."

How logical and natural are the new processes of training, and how surprising are the results, Professor Witmer makes clear in a few sentences:

"The new method which Dr. Furness and I are applying is very similar to that which is applied by the expert trainer of backward children. It does not train the animal to perform tricks, but takes what the animal is able to give and trains his capacity along natural lines. The anthropoid apes, which stand nearest to man, are the best upon which such experiments can be performed.

"Therefore, Dr. Furness brought back with him from Borneo last spring a young orang-outang. A few weeks' training enabled this orang-outang to thread a needle—an unusually large one, to be sure, with very coarse thread—and to 'peg' in a pegging-board, similar to that used in a kindergarten. A few weeks of training changed entirely the orang-outang's attitude toward life. He had previously appeared stupid and uninterested in his surroundings. He enjoys the experiments and goes through the pro-

cesses which he has learned with interest and with as much persistence as could be expected.

"Whether the orang-outang or the chimpanzee is the more intelligent our experiments will reveal, for we have recently acquired a young chimpanzee, who will be taken over the same course of training by Dr. Furness, and comparative results will be obtained. In this work Dr. Furness has shown great patience and remarkable skill in bringing the animal to a recognition of what is required of him.

"In marked distinction from the method commonly employed, the whip and corporal punishment are relatively seldom used. It is a remarkable testimony to the natural capacity of these animals that they are willing to do what is required of them, and are oftentimes quite keen in carrying out an experiment. Naturally, they dislike some of the work, and the little orang-outang has, so far, been quite loath to take his lessons in learning to distinguish the names of objects."

The psychological laboratories of most of the larger universities have a department of animal psychology. At the University of Pennsylvania the work with backward children was developed first as being by far the most im-

portant branch of psychology. S. W. Fernberger, assistant in psychology, is specializing in this department under Professor Witmer's direction.

Last year he carried out some experiments for Dr. Donaldson at the Wistar Institute. These experiments enabled Dr. Donaldson to classify rats, whose brains he desired to study, into groups according to the intelligence which they manifested, the object being to determine whether the brains of the more intelligent rats differed from the brains of the less intelligent.

Mr. Fernberger is now undertaking an extensive study of the behavior and mental characteristics of the monkeys, especially of those whose intelligence brings them nearest to man.

The outcome of these various researches, in their relation to the study of children, is summed up by Professor Witmer in these words:

"Now that the Psychological Clinic is so firmly established and is prepared to do so large a work for the children of this and other states, the psychological laboratory is opening another field of investigation. Lessons which have been learned from a study of the mental processes of backward children will be very helpful in understanding the mental processes of the lower animals. With these newer methods, and limiting the work largely to those animals who manifest the highest intelligence, the investigations in animal psychology at the University of Pennsylvania promise important results, which in their turn will doubtless modify very greatly our ideas as to the development of mentality in the child. In some respects the lower animals



The Quiet Enjoyment of a Simian Diner

are mentally like a child who has never grown up."

When Professor Witmer assembled all the facts he had gathered from his study of the chimpanzee Peter for the Psychological Clinic, the publication of which he is editor, he unhesitatingly dubbed him "a monkey with a mind," and put the important question up for final consideration:

"Is Peter the one genius among apes?" If he does possess the superhuman quickness of action, thought and comprehension which his owners claim for him, Professor Witmer believes the animal should become the ward of science and be subjected, as he phrases it, "to proper educational influences."

"He has been trained," remarks Professor Witmer; "he is partly educated. But no effort has yet been made to give him what an education really stands for. I venture to predict that within a few years chimpanzees will be taken early in life and subjected, for purposes of scientific investigation, to a course of procedure closely resembling that which is accorded the human child."

While his observations of this particular chimpanzee's mental attributes and possibilities—still in course of analysis and reflection on the part of Professor Witmer—may be deemed by the new science of animal psychology as its more valuable gleanings, the ape's traits of character and his human ways, as recalled by the expert psychologist, make an equally instructive study.

Dr. Witmer says he has a downright engaging personality. He is vital—the most mobile individual, Dr. Witmer thinks, he has ever seen.

Peter's activity, he remarks, is not the result of mere animal spirits. He is mentally alert and is possessed of unusual power of concentration, not merely for an animal but for a child of his own age. He is probably in his sixth year chronologically, but at the stage of chimpanzee development corresponding to that of a 7-year-old child.

EVIDENCES OF INTELLIGENCE

The clinical study of Peter by Professor Witmer was crowded with evidences of his intelligence that were directly reducible to principles such experts employ in testing human mentality.

He was not to be deceived in the correct end of the strange, tube cigarette presented to him, or in the delicate science of striking a match, which has proved so often a problem to grown men and women. Professor Witmer says he smokes "as intelligently as a man"—a tribute which anti-tobacco crusaders may regard with small appreciation.

Given beads to string with needle and thread, Peter did as well as anybody, and clapped his hands in self-applause afterward—a trait noticeable in many a child pleased with its own cleverness, and adoredly called "cute" by delighted parents.

He used the unfamiliar "pegging board" of regular kindergarten work with immediate facility; and his examiner, when the lock to which he was accustomed was presented to him, concluded the working of the key was not hard for him, but entirely too easy. So Peter was given a totally different padlock and, actually in a flash of discerning intelligence, operated the key and the staple at a single demonstration.

He searched among a bunch of keys until he found the correct one for the opening of a

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