GARNER RICHARD LYNCH

GORILLAS & CHIMPANZEES

Richard Garner

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Содержание

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PREFACE

The present work is the natural product of some years devoted to a study of the speech and habits of monkeys. It has led up to the special study of the great apes. The matter contained herein is chiefly a record of the facts tabulated during recent years in that field of research.

The aim in view is to convey to the casual reader a more correct idea than now prevails concerning the physical, mental, and social habits of these apes.

The favourable conditions under which the writer has been placed, in the study of these animals in the freedom of their native jungle, have not hitherto been enjoyed by any other student of Nature.

A careful aim to avoid all technical terms and scientific phraseology has been adhered to, and the subject treated in a simple style. Tedious details are relieved by an ample supply of anecdotes taken from the writer's own observations, and most of them are the acts of his own pets or of apes in a wild state. The author has refrained from rash deductions and abstruse theories, but has sought to place the animals here treated in their true light, believing that to dignify the apes is not to degrade man, but to exalt him even more.

It is hoped that a more perfect knowledge of these animals may bring man into closer fellowship and deeper sympathy with Nature, and cause him to realise that all creatures think and feel in some degree, however small.

THE AUTHOR.

CHAPTER I
MAN AND APE COMPARED

Monkeys have always been a subject of idle interest to old and young; but they have usually served to amuse the masses more than to instruct them, until within recent years.

Now that science has brought them within the field of careful research, and made them an object of serious study, it has invested them with a certain dignity in the esteem of mankind, and imparted to them a new aspect among animals.

There is no other creature that so charms and fascinates the beholder as do these little effigies of the human race. The simple and the wise are alike impressed with their human look and manner; children and patriarchs with equal delight watch them with surprise; but now that the search-light of science is being thrown into every nook and crevice of nature, human interest in them is multiplied many fold, while the savants of all civilised lands are struggling with the problem of their possible relationship to man.

Pursuant to the desire of learning as much as possible about their natural habits, faculties, and resources, they are being studied from every available point of view, and every characteristic compared in detail to the corresponding one in man. Hence, in order to appreciate more fully the value of the lessons to be drawn from the contents of this volume, we must know the relative planes in the scale of nature that man and monkeys occupy, wherefore we shall begin our task by comparing them in a general way; but as the scope of this work is restricted mainly to the great apes, the comparison will likewise be confined to that subject, except in so far as to define the relations of man and ape to monkeys.

Since monkeys differ among themselves so widely, it is evident that all of them cannot in the same degree resemble man. And as the degree of interest in them as a subject of comparative study is approximately measured by the degree of their likeness to man, it is apparent that all cannot be regarded as of equal interest. But since each forms an integral part of the scale of nature, they are of equal importance in tracing out the continuity of the order to which they belong.

The vast family of simians has perhaps the widest range of types of any single family of mammals. Beginning with the great apes, which so closely resemble man in size, form and structure, they descend by degrees along the scale till they end in the little marmosets, which are almost on the level of rodents. But the descent is so gradual that it is difficult to draw a sharp line of demarcation at any point between the two extremes. There is, however, now an effort being made to separate this family into smaller groups, but the lines between them must be dim and wavering, and the literature of the past has a tendency to retard the effort.

We shall not digress from the trend of our subject, however, at this time, to discuss the problems with which zoology may have to contend in the future, but will accept the current system and proceed.

All the varied types that belong to the simian family are, in the common order of speech, known as *monkeys*, but the term thus used is so broad in its meaning as to include all the forms of that vast group, wherefore it is vague and obscure, for some of these resemble man more than they resemble each other. The name should only be applied to those having tails and short faces, but there is a small group, which have no tails at all, that are properly known as *apes*. While they are all simians, they are not all monkeys. It is with this small group, without tails, that we propose chiefly to deal. We select them because of their likeness to man, and having noted the similitude, the result may be compared with other types of the same order. There are only four of these apes, but as a whole they resemble man in so many essential details that they are called "anthropoid," or "man-like apes." They differ from each other in certain respects, almost as much as any one of them differs from man. The four apes alluded to, are the chimpanzee, the gorilla, the orang and the gibbon.

As the skeleton is the framework of the physical structure, it will serve as the basis upon which to build up the comparison, and as the chimpanzee is the nearest approach to man, we select him as the highest type of the simian, and use him as the standard.

The skeleton of the chimpanzee may be said to be exactly the same as that of man, but the assertion must be qualified by a few facts which are of minor importance, but since they are facts we cannot ignore them.

The general plan, purpose and principle are the same in each. There is no part of the one that is not duplicated in the other, and there is no function discharged by any part of the one that is not discharged by the like part of the other. The chief point in which they differ is in the structure of one bone.

Near the base of the spinal column is a certain bone called the *sacrum*. It is a constituent part of the column, but in its singular form and structure somewhat differs from the corresponding bone in man. The general outline of this bone in the plane of the hips is that of an isosceles triangle. It fits in between the two large bones that spread out towards the hips, and articulate with the thighbones.

About half-way from the centre to the edge, along each side, is a row of four round holes. Across the surface of the bone is a dim transverse line between each pair of holes, from which it appears that five smaller sections of the column have anchylosed or grown into each other to form the *sacrum*, and the holes coincide with the open spaces between the lateral processes of the other bones of the column above.

In the chimpanzee, this bone has the same general form as in man, but instead of four holes in each row it has five, connected by transverse lines in the same way, indicating that six of the segments are united instead of five; but to compensate for this the ape has one vertebra less in the section of the column just above it, in that portion called the *lumbar*. In it man has five, while the ape has but four. But counting the whole number of bones in the spinal column, and regarding each segment of the *sacrum* as a distinct bone, which to all intents it is, the sum of the bones in each column is exactly the same.

Although this appears to be a fixed and constant character, it cannot be esteemed as a matter of great importance, since the same thing has been known to occur in the human skeleton, and the reverse has been known in some specimens of the apes, but has never been observed in the chimpanzee. In this respect he appears to be more constant than man so far as we know at present.

As the greatest strains of the spinal column are laid upon that part in which the *sacrum* is located, there is a tendency for these segments to unite in order to meet the demand, and since there is the least flexure in that part, the cartilages that lie between them ossify and become rigid. The erect posture of man allows more room in the loins for the fifth vertebra to move, and thus it is prevented from uniting with the segment below it, which is held firmly in place by the two large bones mentioned, while the crouching habit of the ape presses that vertebra firmly against the other, confining it between the two large bones and thus reducing its movement, wherefore the same result follows as with the other sections below.

Another bone that may be said to differ in structure is that known as the *sternum* or breastbone; it is the thin, soft bone to which the ribs are joined in the front of the body. In the young of both man and ape it is a mere cartilage which slowly ossifies from the top downward. The process appears to begin at different centres, the largest nucleus being at the top. There appear to be five of these centres. The bone never becomes quite hard in either man or ape, but always remains somewhat porous, and even in advanced age the outline of the lower part is not defined by a smooth, sharp line, but is irregular in contour and merges or blends into the cartilages that hold the ribs in place.

In man, this bone in maturity is usually found in two segments, while in the ape it varies. In some specimens it is the same as in man, while in others it is found to be in four or five segments. But the *sternum* in each is always regarded as one bone, and is developed from one continuous cartilage. The separate parts are never considered distinct bones. The reason that it is found in separate sections

in the ape is doubtless due to the stooping habit of the animal, by which the bone is constantly flexed and alternately straightened. In man this bone varies to a great extent.

With these trifling exceptions in point of structures alone, the skeletons of man and ape may be truly said to be exact counterparts of each other, having the same number of bones, of the same general type arranged in the same order and articulated in the same manner. The corresponding bone in each is the same in design and purpose. The frame of the ape is much more massive in its proportions than that of man, but while this is true of some kinds of ape the reverse is true of others. The average height of the adult chimpanzee is about 63 inches.

In man the *sacrum* is more curved in the plane of the hips than it is in the ape, while the bones of the digits in man are straighter. The arms of man are shorter than the legs, while in the ape these features are reversed.

In the cranial types, it is readily seen that the skull of man is nearly round and the face is vertical, while the skull of the ape is elongated and the face receding. These facts deserve more notice than the mere mention of their being so.

In the whole scheme of nature certain laws obtain in the projection of skulls. The angle between the plane of the face and the spinal axis is co-ordinate to the angle between the spinal axis and the perpendicular.

To be more exact, the spine of a snake is in a horizontal line, and the face occupies a plane of the same kind. At the other end of the scale is man, whose spine is in a vertical line, and his face occupies a like plane. Between these two extremes are types which tend in various degrees, from the lower to the higher form, and just in proportion as the spinal axis approaches a vertical line from one side, the plane of the face approaches it from the other.

In accord with this fact it will be observed that the foramen or hole in the base of the skull through which the spinal cord passes is adjusted closer and closer to the centre of the base of the skull as the spine becomes erect. In man, whose spinal column is erect, the hole is in the centre of the base; in the reptile, whose spine is horizontal, the hole is at the extreme end of the base. In the ape the spinal axis is at an angle with the vertical line, and the plane of the face conforms to a similar one. In keeping with this law it will be seen in all animals that just in the same degree as the angles widen, the foramen is removed from the centre of the base towards the occiput.

It may be noted here, however, that the facial angle is never exactly the same as the spinal angle. The facial plane of the reptile is not quite horizontal, nor that of man quite vertical, but the ratios of angularity are constant. Even the habit of rearing modifies to some extent this character, but it is only the normal pose of the animal that determines the exact limit of it.

In keeping with these facts it will be observed that as the angle between the chin and the spine widens, the lower jaws project, and the chin recedes or flattens, and in a like degree the voice is modified. The chin of man forms a right angle, but in the reptile it is quite lost. In the former the vocal powers are superior to that of all other animals, but as we descend the scale they are reduced in scope and degraded in quality, until in the lowest reptiles they become a mere hiss or squeak.

By a careful study of the voices together with the skulls of animals, it is found that the gnathic index can be relied upon as a vocal index. The ape has the smallest angle between the spinal axis and the facial plane, and has the greatest vocal range and purest voice of any other animal below man. Among the apes the gibbon has the smallest angle, and he also has the best vocal qualities of any other ape.

The contour of the skull in all parts conforms to the angle of its projection from the spinal axis. It is depressed and elongated in proportion as the angle increases: the brain cavity is narrowed in a like proportion to its length, and the brain, of course, is modified in the same manner.

The brain of the ape resembles that organ in man as closely as his skeleton resembles man's. It has the same lobes, convolutions, and centres. The texture is slightly coarser. The small details are less intricate and their lines somewhat less distinct. But these also differ to a certain extent in different

men. In man and apes the same nerves are present and connect the same organs of sensation, volition and motion. In all essential points they are one.

These leading facts are deemed sufficient to show the physical likeness of apes to man, and we shall refrain from the minute details that would only be of interest to the specialist. The purpose is to acquaint the general reader with the leading facts.

Regarding man purely in the light of an animal, it is evident that he is, physically, very closely allied to the chimpanzee, and that both are integral parts of one great scheme of life, designed by the same author, fashioned after the same model, projected upon the same plan, and amenable to the same system of vital economy. Viewing him in the light of his physical nature, so far it is found that he does not materially differ from other animals in the structure of his skeleton and certain concomitants.

In the vital organs of the two there is perhaps still greater unity of structure, and equal unity of function in all essential details. The difference of structure is only to the extent of making the organ conform to the general plan of the animal, and the difference of function is only one of degree. Since the same characters vary quite as much among men without changing their identity as such, it cannot be sufficient ground to widen the hiatus between man and ape; in fact, the physical likeness of the two grows stronger as the comparison is extended into more minute and scrutinising details. To the casual observer the general resemblance is apparent, but to the student the unity becomes evident.

In addition to the facts we have cited, the ape has the same habits of rest and sleep; lives on the same kind of diet, which is eaten and assimilated in the same manner as with man; is subject to many of the same diseases which attack the same organs, and affect them in the same way as with man; he suffers like pains and dies in the same manner as man under like conditions.

The scope of this book is intended only to embrace the chimpanzee and gorilla, but the comparison which we have shown applies in the name to all four of the anthropoid apes, but must be qualified in a few instances to make it apply to the others. These apes differ among themselves in certain respects in form and habits, and we will omit a detailed comparison of the monkeys as not being relevant to the subject in hand; but it will not be out of place to mention in a general way the chief point in which they differ from men and apes.

There is no fixed type that will represent all kinds of monkeys.

Within the limits of their own family they present a great variety of types, but the one marked difference between them as a unit, and the ape as another, is, that the spinal column of the monkey is always extended into a tail, the first vertebra of which is joined to the base of the *sacrum*, while the ape has no tail, but the spinal column terminates with a small pointed bone called the coccyx, exactly the same as in man. The number of bones and the number of ribs in monkeys differ from those in the ape or in man, and also vary among different types of monkey.

There are many little shades and grades of difference all along the line, but the unity of design throughout the whole range of simian life is such as to show a continuity of plan and purpose in all essential details of the animal economy. With man and ape the physical structures are one, so far as they pertain to autonomy: their habits are one, so far as they pertain to the means of life; their faculties are one, so far as they pertain to the animal polity, yet they may not be of a common stock.

The public mind does not seem to have grasped the correct idea of evolution, and prejudice has blinded, to some extent, the judgment. The common opinion that man has descended from or is related by consanguinity to a monkey is silly and absurd. Science has never taught such folly, nor advanced any theory from which such a conclusion could be justly deduced. It would be a waste of time for me to offer to explain the doctrine of evolution to any one who does not already understand it from the literature of others on this subject. If he still nurse the idol of the identity of man and monkey, he must be too obtuse or too perverse to be reclaimed. But no one will deny the physical resemblance between man and the great apes, and it is this resemblance we seek to show rather than trace any relationship based upon theories. It is not a matter that concerns the purpose of this work, and we shall here dismiss the subject by saying, that things may be equivalent and yet not identical.

CHAPTER II
CAGED IN AN AFRICAN JUNGLE

It may be of interest to the reader to know the manner in which I have pursued the study of monkeys in a state of nature, and the means employed to that end. I shall therefore give a brief outline of my life in a cage in the heart of an African jungle in order to watch those denizens of the forest, when free from all restraint.

After devoting much time for several years to the study of the speech and habits of monkeys in captivity, I formulated a plan of going into their native haunts, to study them in a state of freedom.

In the course of my labours up to that time, I had found out that monkeys of the highest physical type had also a higher type of speech than those of inferior kinds. In accord with this fact, it was logical to infer that the anthropoid apes, being next to man in the scale of nature, must have the faculty of speech developed in a corresponding degree.

As the chief object of my studies was to learn the language of monkeys, the great apes appeared to be the best subjects for that purpose, so I turned my attention to them.

The gorilla was said to be the most like man, and the chimpanzee next. There were none of the former in captivity, and but few of the latter, and they were kept under conditions that forbade all efforts to do anything in that line.

As the gorilla and chimpanzee could both be found in the same section of tropical Africa, I selected that as the field of operation, and began to prepare for a journey there to carry out the task I had assumed.

The part selected was along the equator, and south of it, about two degrees. The locality is infested with fevers, insects, serpents and wild beasts of divers kinds. To ignore such dangers would be folly, but there was no way to see these apes in their freedom, except to go and live among them.

To lessen, in a degree, the dangers incurred by such an adventure, I devised a cage of steel wire, woven into a lattice with a mesh one inch and a half wide. This was made in twenty-four panels, three feet three inches square, set in a frame of narrow iron strips. Each side of the panels was provided with half-hinges, so arranged as to fit any side of every other panel. These could be quickly bolted together with small iron rods, and, when so bolted, formed a cage of cubical shape, six feet six inches square.

Any one or more of the panels could be swung open as a door, and the whole structure was painted a dingy green, so that when erected in the forest it was almost invisible among the foliage.

While it was not strong enough to withstand a prolonged siege, it afforded a certain immunity from being surprised by the fierce and stealthy beasts of the jungle, and would allow the occupant time to kill an assailant before the wires would yield to an attack from anything except an elephant. Of course it was no protection against them, but as they rarely ever attack a man unless provoked to it, there was little danger from that source; besides, there were not many of those huge brutes in the immediate part in which my strange domicile was set up.

Through this open fabric one could see without obstruction on all sides, and yet feel a certain sense of safety from being devoured by leopards or panthers.

Over this frail fortress was a roof of bamboo leaves, and it was provided with curtains of canvas to be hung up in case of rain. The floor was of thin boards, steeped in tar, and the structure was set up about two feet from the ground, on nine small posts.

It was furnished with a bed, made of heavy canvas supported by two poles of bamboo, attached to the edge of it. One of these poles was lashed fast to the side of the cage, and the other was suspended at night by strong wire hooks, hung on the top of it. During the day, the bed was rolled up on one of the poles, so that it was out of the way. I had a light camp chair, which folded up, and a table was

improvised by a broad, short board hung on wires. This could be set up by the wall of the cage at night, out of the way. To this meagre outfit was added a small kerosene stove, and a swinging shelf.

A few tin cases contained my wearing apparel, blanket, pillow, photograph camera and supplies, medicines, and an ample store of canned meats, crackers, &c. A magazine rifle, revolver, ammunition, and a few useful tools, such as a hammer, saw, pliers, files, and a heavy bush-knife, completed my stock, except some tin platters, cups and spoons. These served in cooking, and also for the table, instead of dishes.

With this equipment I sailed from New York on the 9th of July 1892, *viâ* England, to the port of Gaboon, the site of the colonial government of the French Congo. This place is within a few miles of the equator, and near the borders of the country in which the gorilla lives. I arrived there on the 18th of October of the same year, and after a delay of a few weeks I set out to find the object of my search.

Leaving this place, I went up the Ogowe River about two hundred miles, and through the lake region on the south side of it. After some weeks of travel and inquiry, I arrived at the lake of Ferran Vaz, in the territory of the Nkami tribe. The lake is about thirty miles long, by eight or ten wide, and interspersed with a few islands of large size, covered with a dense growth of tropical vegetation. The country around the lake is mostly low and marshy, traversed by creeks, lagoons and rivers. Most of the land is covered by a deep and dreary jungle, with a few sandy plains at intervals.

In the depths of this gloomy forest, reeking with the effluvia of decaying plants, and teeming with insect life, the gorilla dwells in safety and seclusion. In the same forest the chimpanzee makes his abode, but is less timid and retiring.

On the south side of this lake, not quite two degrees below the equator, and within some twenty miles of the ocean, I selected a place in the heart of the primeval forest, erected my little fortress, and gave it the name of *Fort Gorilla*.

In the latter part of April 1893, I took up my abode in this desolate spot, and began my long and solitary vigil.

My sole companion was a young chimpanzee, that I named Moses, and, from time to time, a native boy, as a servant.

Seated in this cage, in the silence of the great forest, I have seen the gorilla in all his majesty, strolling at leisure through his sultry domain, in quest of food. I have seen the chimpanzee under like conditions, and the happy, chattering monkey in the freedom of his jungle home.

In this novel hermitage I remained for the greater part of the time for one hundred and twelve days and nights in succession, watching these animals in perfect freedom following the pursuits of their daily life.

With such an experience, I will not be charged with vanity in saying that I have seen more of those animals in a state of nature than any white man ever saw, and under conditions more favourable for a careful study of their manners and habits, than could otherwise be possible. Hence, what I have to say concerning them is the result of an experience which no other man can claim.

I do not mean to ignore or impugn what others have said on this subject, but the sum of my labours in this field leads me to doubt much that has been said and accepted as true. I regret that it devolves upon me to controvert many stories told about these great apes, but finding no germ of truth in some of them, I cannot evade the duty of denying them. I regret it all the more, because many of them have been woven into the fabric of natural history, and marked with the seal of scientific approval; but time will sustain me in the denial.

I am aware that bigots of certain schools will challenge me for pointing out their mistakes, and some will assume to know more about these apes than a fish knows about swimming; but truth defies all theory.

Each kind of ape will be treated in the chapter devoted to it, but only those with which I have dealt in person will be discussed at length. Others will be noticed, in order to sustain the continuity

of the subject and show the relative planes of those under consideration. But before proceeding with the monkeys, I shall pause to relate some of the incidents of my hermitage.

CHAPTER III
DAILY LIFE AND SCENES IN THE JUNGLE

I am so frequently asked about the details of my daily life in the cage, how the time was occupied and what I saw besides the apes, that I deem it of interest to relate a few of the events of my sojourn in this wild spot.

In order to convey an idea of it, I shall relate the incidents of a single day and night; but of course the routine varied in some degree from day to day.

At six o'clock, as the sun first peeps into the forest, it finds me with a tin cup of coffee, just made on the little kerosene stove. It is black and dreggy, but with a little sugar it is not bad. With a few dry crackers I break my fast of twelve hours, and am ready for the task before me.

In the meantime the boy rolls up my bed and his mat. By this time Moses has helped himself to a banana or two. Then I take my rifle, he climbs up on my shoulder, and we go for a short walk in the bush, while the boy sweeps out the cage and puts everything in order for the day. When we return, the boy, armed with a native spear, or a huge knife, takes the big jug, and goes to a spring, about three hundred yards away, for a supply of water.

Then Moses is allowed to climb about in the bushes and amuse himself; the boy sits down, or goes to his village a mile away, while I watch for gorillas. Silence is the order of the day, and here I sit, sometimes for hours alone, almost as quiet as a tomb.

Presently a rustle of the leaves is heard, and a porcupine comes waddling into view. He is poking his nose about, in search of food, but has not discovered my presence. He comes closer, until the scent or sight of me startles him, and away he goes. By-and-by a civet cat comes stealing through the bush, till he observes me, and hastily departs.

After an hour of patient waiting the sound of clashing boughs is heard in the tree-tops. A few minutes later may be seen a big school of monkeys, led by a solemn-looking old pilot, who doubtless knows every palm that bears nuts within twenty miles around. They are now coming to inspect my cage, and see what new thing this is, set up in monkeydom.

As they come nearer, they become more cautious and tardy. They find a strong bough in the top of a big tree, and the grave old pilot perches himself far out on it, to peep at my cage. Just behind him sits the next in rank, resting his hands on the shoulders of the leader, while a dozen more are arranged in similar attitudes behind each other, along the limb. Each one pushes the one just in front of him, to make him move up a little closer, but no one of them, except the pilot, seems to want the front seat.

They look in silence, turning their little heads from side to side, as if to be certain it is not an illusion. They nudge one another again, and move up an inch or two closer, squinting their bright eyes, as if in doubt about the strange sight before them. They have made such calls before, but have not quite determined what kind of an animal this is in the cage. At each successive visit they come a little nearer, until now they are not a hundred feet away. Now they take alarm at something, and hurry away in another direction.

Next comes an armadillo, prowling about for insects among the leaves. He catches a glimpse of the cage, he stands motionless for a moment, to see what it is, and then, like a flash, he is gone.

During this time birds of divers kinds have been flying in all directions. Some of them perch on the limbs near by, some pick the nuts of the palm-tree, while others scream and screech, like so many tin-whistles, or brass horns. Many of them are parrots. Some have brilliant and beautiful plumage.

It is now ten o'clock. Not a breath of air stirs a leaf of the whole forest. The heat is sweltering and oppressive. The voices of the birds grow less and less frequent. Even the insects do not appear to be so busy as they were in the earlier hours of the day. Moses has abandoned his rambles in the bush, and sits on a fallen tree, with his arms folded, as if he had finished work for the day.

Along towards this hour everything in the forest appears to become quiet and inactive, and continues so until about two o'clock in the afternoon. I was impressed on more than one occasion with this universal rest during the hottest part of the day, and the same thing seems to prevail among the aquatic animals.

I now prepare my repast for midday, by opening a can of meat or fish, and warming it in a tin plate on the little stove. I have no vegetables or dessert, but with a few crackers broken up, and stirred into the grease, and plenty of water to drink with it, I find it an ample meal. When it is finished, Moses coils up in his little hammock, swung by my side, and takes his siesta. The boy, when there, stretches out on the floor, and does likewise.

During the hours from ten till two, few things are astir, though I have seen some interesting sights during that time.

It must not be supposed that the change is sudden at these periods, for such is not the case. It is not a fixed time for everything to cease its activity. It is by slow degrees that one after another becomes quiescent, until life appears almost extinct for a time; but as the sun begins to descend the western sky, things begin to revive, and by three o'clock everything is again astir.

Now a lone gorilla comes stalking through the bush, looking for the red fruit of the *batuna* that grows at the root of the plant. He plucks a bud of some kind, tears it apart with his fingers, smells it, and throws it aside. Now he takes hold of a tall sapling, looks up at the shaking branches, and turns aside. He pauses and looks around as if suspicious of danger. He listens to see if anything is approaching, but being reassured he resumes his search for food. Now he gently parts the tangled vines that intercept his way, and creeps noiselessly through them. He hesitates, looks carefully around him, and then proceeds again. He is coming this way. I can see his black face as he turns his head from side to side, looking for food. What a brutal visage! It has a scowl upon it, as if he were at odds with all his race. He is now within a few yards of the cage, but is not aware of my presence. He plucks the tendril from a vine, smells it, and puts it in his mouth. He plucks another and another. I shall note that vine, and ascertain what it is. Now he is in a small open space, where the bush is cut away, so as to afford a better view. He seems to know that this is an unusual thing to find in the jungle, so he surveys it with caution. He comes nearer. Now he has detected me. He sits down upon the ground, and looks at me as if in utter surprise. A moment more he turns aside, looks back over his shoulders, but hurries away into the dense jungle.

It is now four o'clock, and I hear a wild pig rooting among the fallen leaves. I see a small rodent that looks like a diminutive hedgehog. He is gnawing the bark from a dead limb, possibly to capture some insect secreted under it; but as rodents usually live upon vegetable diet, he may have some other reason for this.

It is five o'clock, and the shadows are beginning to deepen in the forest. I see two little grey monkeys playing in the top of a very tall tree. The birds are tiresome and monotonous. Yonder is a small snake twined around the limb of a bushy tree. He is doubtless hunting for a nest of young birds. The low, muttering sound of distant thunder is heard, but little by little it grows louder. It is the familiar voice of the tornado. I must prepare for it.

The stove is now lighted, and a pie-pan of water set on it. In it is stirred an ounce of desiccated soup. It is heated to the boiling-point, and then set on the swinging table. Then a can of mutton is emptied into another pan of the same kind, and a few crackers broken and stirred in. The soup is eaten while the meat is being cooked. When it is ready, the flame of the stove is turned off, and the second course of dinner is served, consisting of canned mutton, crackers and water. The dishes, consisting usually of three tin pie-pans and a cup, are thrust out into the adjacent bush, for the ants and other insects to clean during the night.

In the meantime Moses has had his supper, and gone to his own little cage, to find shelter from the approaching storm. The curtains are hung up on the side of the cage, from which the tornado is coming. Now the leaves begin to rustle. It is the first cool breath of the day, but it is only the herald

of the furious wind that is rapidly advancing. The tree-tops begin to sway. Now they are lashing each other as if in anger; the strong trees are bending from the wind; the lightning is so vivid that it is blinding; the thunder is terrific. One shaft after another, the burning bolts are hurled through the moaning forest. The roar of thunder is unceasing. I hear the dull thud of a falling tree, while the crackling boughs are falling all around me. The rain is pouring in torrents, and all nature is in a rage. Every bird and beast has sought a place of refuge from the warring elements. No sign of life is visible, no sound is audible, save the voice of the storm.

How unspeakably desolate the jungle is at such an hour, no fancy can depict. How utterly helpless a human being is against the wrath of nature, no one can realise, except to live through such an hour in such a place.

On one occasion five large trees were blown down, within a radius of two hundred yards of my cage, and scores of limbs were broken off by the wind, and scattered like straws. Some of them were six or eight inches in diameter, and ten or twelve feet long. One of them broke the corner off the bamboo roof over my cage. The limb was broken off a huge cotton-tree near by, and fell from a height of about sixty feet. It was carried by the wind some yards out of a vertical line as it fell, and just passed far enough to spare my cage. Had it struck the body of it, no doubt it would have been partly demolished, for the main body of the bough was about six inches in diameter and ten feet long. This particular tornado lasted for nearly three hours, and was the most violent of any I saw during the entire year.

Now the storm subsides, but the darkness is impenetrable. I have no light of any kind, for that would alarm the inhabitants of the jungle, and attract a vast army of insects from all quarters. Moses and the boy are fast asleep, while I sit and listen to the many strange and weird sounds heard in the jungle at night The bush crackles near by. It is a leopard creeping through it. He is coming this way. Slowly, cautiously he approaches. I cannot see him in the deep shadows of the foliage, but I can locate him by sound, and identify him by his peculiar tread. Perhaps he will attack the cage when he gets near enough. He is creeping up closer. He evidently smells his prey, and is bent on seizing it.

My rifle stands by my elbow. I silently raise it, and lay it across my lap. The brute is now crouching within a few yards of me, but I cannot see to shoot him. I hear him move again, as if adjusting himself to spring upon the cage. He cannot see it, but he has located me by scent. I hear a low rustling of the leaves as he wags his tail preparatory to a leap. If I could only touch a button and turn on a bright electric light over his head! He remains crouching near, while I sit with the muzzle of my rifle turned towards him, and my hand on the lock. It is a trying moment. If he should spring with such force as to break the frail network that is between us, there could be but one fate for me.

In the brief space of a few seconds a thousand things run through one's mind. Not prompted by fear, but by suspense. Is it best to fire into the black shadows, or to wait for his attack? What is his exact pose? What does he intend? How big is he? Can he see me? And a category of similar questions arise at this critical moment.

A clash of bushes, and he is gone. Not with the stealthy, cautious steps with which he advanced, but in hot haste. He has taken alarm, abandoned his purpose, and far away I can hear the dry twigs crashing as he hurries to some remote nook. He flees as if he thought he was being pursued. He is gone, and I feel a sense of relief.

It is ten o'clock, the low rumbling of distant thunder is all that remains of the tornado that swept over me a few hours ago. The stars are shining, but the foliage of the forest is so dense, that I can only see one here and there, peeping through the tangled boughs overhead. I hear some little waif among the dead leaves, but what it is, or what it wants, can only be surmised.

Another hour is passed, and I retire to my hammock. The sounds of nocturnal birds are fewer now. I hear a strange, tremulous sound up in the boughs of the bushes near the cage. It sounds like the leaves vibrating. It ceases, and begins again at intervals. I listen with attention, for it is very singular. It is a huge python in search of birds. He reaches his head and neck forward, grasps the bough of a

slender bush, releases his coil from another, and by contraction draws his slimy body forward. The pliant boughs yield to his heavy weight. The abrasion causes it to tremble, and the leaves to quake.

I fall asleep and rest in comfort, while the dew that has fallen on the leaves gathers itself into huge drops, their weight bends the leaves, and they fall from their lofty perch, striking those far below with a sharp, popping sound. The hours fly by, but in the stillness of the early morning is heard a most unearthly scream. It is a king gorilla. He simply makes every leaf in the forest tremble with the sound of his piercing shrieks.

The dawn again awakes to life the teeming forest, and all its denizens again go forth to join the universal chase for food.

All of these incidents cited are true in every detail, but they did not occur every day, nor did all of them occur on the same day, as would be inferred from the manner in which they are related.

This gives a glimpse of my real daily life in the jungle, but the monotony was often relieved by going out for a day or two at a time, or hunting on the plains, a few miles away. My menu was occasionally varied by a chicken, piece of goat, fish or porcupine; but the general average of it was about as described.

CHAPTER IV
THE CHIMPANZEE

Next to man, the chimpanzee occupies the highest plane in the scale of nature. His mental and social traits, together with his physical type, assign him to this place.

In his distribution, he is confined to Equatorial Africa. His habitat, roughly outlined, is from the fourth parallel north of the equator to the fifth parallel south of it, along the west coast, and extends eastward about half-way across the continent. His range can be defined with more precision, but its exact limits are not quite certain. Its boundary on the north is defined by the Kameroon valley, slightly curving to the north, but its extent eastward is not well known. He does not appear to be found anywhere north of this river, and it is quite certain that the few specimens attributed to the north coast of the Gulf of Guinea do not belong to that territory. On the south, its boundary starts from the coast, at a point near the fifth parallel, curves northward, crossing the Congo near Stanley Pool, pursues a north-east course, to the centre of the Congo State, again curves southward, across the Upper Congo, towards the north end of Lake Tanganyika. Its limits appear to conform more to isothermal lines, than to the rigid lines of geometry.

Specimens are sometimes secured by collectors beyond the limits mentioned, but so far as I can ascertain they appear to have been captured within these limits. There are numerous centres of population. This ape is not strictly confined to any definite topography, but occupies the upland forests or the low basin lands.

In one section he is known to the natives by one name, and in another by quite a different one. The name *chimpanzee* is of native origin. In the Fiot tongue the name of the ape is *chimpan*, which is a slight corruption of the true name. It is properly a compound word, the first syllable is from the Fiot word *tyi*, which white men erroneously pronounce like "chee." It means "small," and is found in many of the native compounds. The latter syllable is from *mpâ*, a bushman, hence the word literally means, in the Fiot tongue, "a small bushman."

Among other tribes the common name of the ape is *ntyigo*. The two names appear to come from the same ultimate source. The latter is derived from the Mpongwe word *ntyia*, blood, hence breed, and the word *iga*, the forest, and literally means the "breed of the forest." The same idea is involved in the two names, and both convey the oblique idea that the animal is something more like man than other animals are.

There are two distinct types of this ape, and they are now regarded as two species. One of them is distributed throughout the entire habitat described, while the other is only known south of the equator, between the second and fifth parallels, and west of the Congo. Both kinds are found within these limits, but the variety which is confined to that region is called, by the tribes that know the ape, the *kulu-kamba*, in contradistinction to the other kind, known as *ntyigo*. This name is derived from *kulu*, the onomotope of the sound made by the animal and the native verb *kamba*, to speak, hence the name literally means the thing "that speaks kulu."

In certain points the common variety differs from the *kulu-kamba* in a degree that would indicate that they belong to distinct species, but the skulls and skeletons are so nearly the same, that no one can identify them with certainty. In life, however, it is not difficult to distinguish them.

The *ntyigo* has a longer face and more prominent nose than the *kulu*. His complexion is of all shades of brown, from a light tan to a dark, dingy mummy colour. He has a thin coat of short black hair, which is often described as brown, but that effect is due to the colour of his skin blending with that of his suit. In early life his hair is quite black, but in advanced age the ends are tipped with a dull white, giving him a dingy grey colour. The change is due to the same causes that produce grey hairs on the human body. But there is one point in which they differ. The entire hair of the human

becomes white with age, while only the end of it does so in the chimpanzee. In the human, one hair becomes white, while another retains its natural colour, but in this ape all the hairs appear to undergo the same change.

In very aged specimens the outer part of the hair often assumes a dirty, brownish colour, which is due to the want of vascular action to supply the colour pigment, and the same effect is often seen in preserved specimens, for the same reason that the hair of an Egyptian mummy is brown, while in life it was doubtless a jet black. In this ape the hair is uniformly black, except the small tuft of white at the base of the spinal column and a few white hairs on the lower lip and chin. I have examined about sixty living specimens and I have never found any other colour among them only from the cause mentioned. The normal colour of both sexes is the same.

The *kulu*, as a rule, has but little hair on the top of its head, but that on the back of it and on the neck is much longer than elsewhere on the body, and longer on them than on other apes.

Much stress is laid by some writers on the bald head of one ape and the parted hair on that of another. These features cannot be relied upon as having any specific meaning, unless there are as many species as there are apes. Sometimes a specimen has no hair on the summit of its head, while another differs from it in this respect alone by having a suit of hair more or less dense, and yet in every other respect they are the same. Some of them have the hair growing almost down to the eyebrows, and each hair appears to diverge from a common centre like the radii of a sphere: another of the same species will have the hair parted in the middle as neatly as if it had been combed, while another may have it in wild disorder. The same thing is noticed in certain monkeys, and it is equally true of the human being. As a factor in classifying them it signifies nothing. It may be remarked that as a whole the *kulu* is inclined to have little hair upon the crown of the head.

Between the two species there is a close alliance, but the males differ more than the females. This is especially true in the structure of certain organs.

The face in youth is quite free from hairs, but in the adult state there is, in both sexes, a slight tendency to grow a light down over the cheeks.

The colour of the skin is not uniform in all parts of the body, especially on the face. Some specimens have patches of dark colour set in a lighter ground. Sometimes certain parts of the face will be dark, and other parts light. I have seen one specimen quite freckled.

It is said by some that the skin is light in colour when young, and becomes darker with age, but such is not the case. It is true that the skin darkens a few shades as the cuticle hardens, but there is no transition from one colour to another, and this slight change of shade is only on the exposed parts.

The *kulu* has a short, round face, very much like that of a human. In early life it is quite free from hairs, but, like the other, a slight down appears with age. He has a heavy suit of hair on the body. It is coarser than that of the *ntyigo*, longer, and inclined to wave, giving it a fluffy aspect. The colour is jet black, except a small tuft of white about the base of the spine.

The skin varies in colour less than in the *ntyigo*, and the darker shades seldom appear. The eyes are a shade darker, and in both species the parts of the eye which are white in man are brown in the chimpanzee, gradually shading off into a yellow near the base of the optic nerve. As a rule, the *kulu* has a clear, open visage, with a kindly expression. It is confiding and affectionate to a degree beyond any other animal. It is more intelligent than its *confrère*, and displays the faculty of reason almost like a human being.

One important point in which these apes differ is in the scope and quality of voice. The *kulu* makes a greater range of vocal sounds than the other. Some of them are soft and musical, while those uttered by the *ntyigo* are fewer in number and more harsh in quality. One of them resembles the bark of a dog, and another is a sharp screaming sound.

The *kulu* evinces a certain sense of gratitude, while the *ntyigo* appears to be almost devoid of this instinct. There are many traits in which they differ, but human beings, of the same family, also differ in these qualities.

The points in which they coincide are many, and after a brief review of them, we may consider the question of making two species of them, or assigning them to the same.

The skeletons, as we have noted, are the same in form, size and proportion. Their muscular, nervous, and veinous systems are the same, except a slight structural variation in the genital organs of the males, and the degree of mobility in certain facial muscles. The character of their food, and the mode of eating it, are the same in each. In captivity they appear to regard each other as one of their own kind, but whether they mate or not remains to be learned.

Such is the sum of the likenesses and differences between the two extreme types of this genus; but with so many points in common, and so few in which they differ, it is a matter of serious doubt whether they can be said to constitute two distinct species, or only two marked varieties of a common species. This doubt is further emphasised by the fact that all the way between these two extremes are many gradations of intermediate types, so that it is next to impossible to say where one ends and the other begins.

In view of all these facts, I believe them to be two well-defined varieties of the same species; they are the white man and the negro of a common stock. They are the patrician and plebeian of one race, or the nobility and yeomanry of one tribe. They are like different phases of the same moon. The *kulu-kamba* is simply a high order of chimpanzee.

It is quite true that two varieties of one species usually have the same vocal characteristics, and this appears to be the strongest point in favour of assigning them to separate species, but it is not impossible that even this may be waived.

Leaving this question for others to decide, as they find the evidence to sustain them, we shall, for the present, regard them as one kind, and consider their physical, social and mental status.

Whether they be all of one species, or divided into many, the same habits, traits, and modes of life prevail throughout the entire group, so that one description will apply to all, so far as we have to deal with them in general. There are many incidents to be related elsewhere, which apply to individuals of the special kinds mentioned, but for the present the term chimpanzee is meant to include the whole group, except where it may be otherwise specified.

CHAPTER V
PHYSICAL, SOCIAL, AND MENTAL QUALITIES

Physically, the chimpanzee, as we have seen, closely resembles man, but there are certain points that have not been mentioned in which he differs from him, also from other apes. We may here take note of a few of those points.

The model and structure of the ear of this ape are somewhat the same as those of man, but the organ is larger in size, and thinner in proportion. It is very sensitive to sound, but dull to the touch, indicating that the surface is not well provided with nerves. He cannot move it as other animals move theirs by the use of the muscles at its base, but, like the human ear, it is quite fixed and helpless in this respect.

The hand of the chimpanzee is long and narrow. The finger bones are longer, in proportion to their size, than those of the human hand, and slightly more curved in the plane of the digits. One thing peculiar in the hand of the chimpanzee, is that the tendons inside of the hand, which are called the flexors, and designed to close the fingers, are shorter than the line of the bones, and on this account the fingers of the ape are always held in a curve, so that he cannot possibly straighten them into a line. This is probably due to the habit of climbing in which he indulges to a great extent; also to the practice of hanging by the hands. In making his way through the bush, he often swings from bough to bough by the arms alone, and sometimes suspends himself by one arm, while he uses the other to pluck and eat fruit. This characteristic is transmitted to the young, and is found in the first stages of infancy. The thumb is not truly opposable, but is inclined to close towards the palm of the hand. It is of little use to him. His nails are thick, dark in colour, and not so flat as those of man.

Instead of having the great toe in line with the others, it projects at an angle from the side of the foot, something after the manner of the human thumb. The foot itself is flexible, and has great prehensile power. In climbing, and in many other ways, it is used as a hand. The tendons in the sole of the foot are equal in length to the line of the bones, and the digits of the foot can be straightened, but both members are inclined to curve into an arch in the line of the first and second digits.

His habit of walking is peculiar. The greater part of the weight is borne upon the legs. The sole of the foot is placed almost flat on the ground, but the pressure is greatest along the outer edge of it, in the line of the last digit. This is easily noticed where he walks through plastic ground. In the act of walking he always uses the hands, but does not place the palm on the ground; he uses the backs of the fingers instead, sometimes only the first joints are placed on the ground, resting on the nails; at other times the first and second joints are used, while at others the backs of all the fingers from the knuckles to the nails serve as a base for the arm. The integument on these parts is not callous, like that of the palm; the colour pigment is distributed the same as on other exposed parts of the body, which shows that the weight of the body is not borne on the fore limbs, as it is in the case of a true quadruped, but indicates that the hand is only used to balance the body and shift the weight from foot to foot, while in the act of walking. The weight is not equally distributed between the hands and the feet.

His waddling gait is caused by his short legs, stooping habit and heavy body. All bipeds with stout bodies and short legs are predisposed to a waddling motion, which is due to the wide angle between the weight and the changing centre of gravity.

The chimpanzee is neither a true quadruped, nor a true biped, but combines the habits of both. It appears to be a transition state from the former to the latter, and a vestige of this habit is still to be found in man, whose arms alternate in motion with his legs in the act of walking, which suggests the idea that he may, at some time, have had a similar habit of locomotion. Such a fact does not show that he was ever an ape, but it does point to the belief that he has once occupied a like horizon in nature to that now occupied by the ape, and that having emerged from it, he still retains traces of the habit.

This peculiarity is still more easily observed in children than in adults. In early infancy all children are inclined to be bow-legged, and in their first efforts at walking, invariably press most of their weight on the outer edge of the foot, and curve the toes inward, as if to grasp the surface on which the foot is placed. The instinct to prehension cannot be mistaken; it differs in degree in different races, and is vastly more pronounced in negro than in white infants.

There is another peculiar feature in the walk of the chimpanzee. The motion of the arms and legs do not alternate with the same degree of regularity that they do in man or quadrupeds. This ape uses his arms more like crutches. They are moved forward, not quite, but almost at the same instant, and the motion of the legs is not at equal intervals. To be more explicit: the hands are placed almost opposite each other; the right foot is advanced about three times its length; the left foot placed about one length in front of it; the arms are again moved; the right foot again advanced about three lengths forward of the left; and the left again brought about one length in front of it. The same animal does not always use the same foot to make the long stride. It will be seen by this that each foot moves through the same space, and that in a line, the tracks of either foot are the same distance apart, but the distance from the track of the right foot to that of the left is about three times as great as the distance from the track of the left foot to that of the right; or the reverse may be the case. The distance from the track of either foot to the succeeding track of the other, is never the same between the right and left tracks, except where the animal is walking at great leisure.

There is, perhaps, no animal more awkward than the chimpanzee, when he attempts to run. He sometimes swings his body with such force between his arms as to lose his balance, and falls backward on the ground. I have often seen him do this, and when he would right himself again, would be half his length farther backward than forward of his starting-point.

The chimpanzee is doubtless a better climber than the gorilla. He finds much of his food in trees, but is not arboreal in habit in the proper sense of that term. To be arboreal, the animal must sleep in trees or on a perch, but the chimpanzee cannot do so. He sleeps the same as a human being does. He lies down on the back or side, and, as a rule, uses his arms for a pillow. I do not believe it possible for him to sleep on a perch. He may sometimes doze in that way, but the grasp of his foot is only brought into use when he is conscious of it. I have often known Moses to climb down from the trees and lie upon the ground to take a nap. I never even saw him so much as doze in any other position.

I may here call attention to one fact concerning the arboreal habit. There appears to be a rule to which this habit conforms. Among apes and monkeys the habit is in keeping with the size of the animal. The largest monkeys, as a rule, are only found among the lowest trees, and the smaller monkeys among the taller trees. It is a rare thing ever to see a large monkey in the top of a tall tree. He may venture there for food or to make his escape, but it is not his proper element. This same rule appears to hold good among the apes themselves. The gibbon has this habit in a more pronounced degree than any other true ape. The orang appears to be next; the chimpanzee then comes in for a third place, and the gorilla last. It must not be understood that all of these apes do not frequently climb, even to the tops of the highest trees; but that is not their normal mode of life any more than the top of a mast is the proper place on a ship for a sailor.

The chimpanzee is nomadic in habit, and, like the gorilla, seldom or never passes two nights in the same spot. As to his building huts or nests in trees or elsewhere, I am not prepared to believe that he ever does so. I hunted in vain, for months, and made diligent inquiry in several tribes, but failed to find a specimen of any kind of shelter built by an ape. I do not assert that it is absolutely untrue, but I have never been able to obtain any evidence, except the statement of the natives that it was true. On the contrary, certain facts point to the opposite belief. If the ape built him a permanent home the natives would soon discover it, and there would be no difficulty in having it pointed out. If he built a new one every night, however rude and primitive it might be there would be so many of them in the forest that there would be no difficulty in finding them. The nomadic habit plainly shows that he

does not build the former kind, and the utter absence of them shows that he does not build the latter kind, and the whole story appears to be without foundation.

In addition to these facts, one thing to be noticed is that few or none of the mammals of the tropics ever build any kind of a home. Even the animals that have the habit of burrowing in other climates, do not appear to do so in the tropics. This is due, no doubt, to the warm climate, in which they are not in need of shelter. Of course birds, and other oviperous animals, build nests, as they do elsewhere.

The longevity of these apes is largely a matter of conjecture, but from a cursory study of their dentition and other factors of their development, it appears that the male reaches the adult stage at an age ranging from nine to eleven years, while the female matures at six or seven. These appear to be the periods at which they pass from the state of adolescence. Some of them live to be perhaps forty years of age, or upwards, but the average of life is doubtless not more than twenty-two or twenty-three years. The average of life is more uniform with them than with man. These figures are not mere guesswork, but are deduced from reliable data.

The period of gestation in both these apes is a matter that cannot be stated with certainty. Some of the natives say that it is nine months, while others believe that it is seven months or less, and there are some facts to support both of these claims, but nothing quite conclusive. The sum of the evidence that I could find rather pointed to a term of three months or thereabouts as the true period. During the months of February and March the male gorillas are vociferous in their screaming, the young adults separate from the families, and some other things indicate that this is the season of pairing and breeding. Such may not be the case, but the inference is well-founded. It is quite certain that the season of bearing the young is from the beginning of May to the end of June. It is about this time that the dry season begins and continues for four months. It would appear that nature has selected this period of the year because it is more favourable for rearing the young. During this season food is more abundant and can be secured with less effort. The lowlands are drier, and this enables the mother to retire to the dense jungle with her young, where she is less exposed to danger than she would be in the more open forest.

It is not certain whether the periods are the same with both apes or not, and native reports differ on this point, but it is probable that they are the same.

From a social point of view, the chimpanzee appears to be of a little higher caste than other animals. In his marital ideas he is polygamous, but is, in a certain degree, loyal to his family. The paternal instinct is a trifle more refined in him than in most other animals. He seems to appreciate the relationship of parent and child more, and retain it longer than others do. Most male animals discard their young, and become estranged to them at a very early age; but the chimpanzee keeps his children with him until they are old enough to go away and rear a family of their own.

The family of the chimpanzee frequently consists of three or four wives and ten or twelve children, with one adult male; but there are cases known in which two or three elderly males have been seen in the same family, but they appear to have their own wives and children. In such an event, however, there seems to be one who is supreme. This fact suggests the idea that among them a form of patriarchal government prevails. The wives and children do not appear to question the authority of the patriarch, or to rebel against it. The male parent often plays with his children, and appears to be fond of them.

There is one universal error that I desire here to correct. It is the common idea that animals are so strongly possessed of the parental instinct that they nobly sacrifice their own lives in defence of their young. I do not wish to dispel any belief that tends to dignify or ennoble animals, for I am their special friend and champion; but truth demands that we qualify this statement. It is quite true that many have lost their lives in such acts of defence, but it was not a voluntary sacrifice. It was not alone in the defence of their young, but in many cases it was in self-defence. In others, it was from a lack of judgment. These apes have often been frightened away from their young, and the latter captured

while the parents were fleeing from the scene. This may have been the result of sagacity rather than of depravity, but the parental instinct in both sexes, in many instances, has failed to restrain them from flight. If it be a foe that appears to come within the measure of their own power, they will certainly defend their young, and this sometimes results in the loss of their own lives; but if it be one of such formidable aspect as to appear quite invincible, the parents leave the young to their fate. This is true of many other animals, including man.

I have no desire to detract from the heroic quality of this instinct, or to dim the glory it sheds upon noble deeds ascribed to it; but the fact that a parent incurs the risk of its own life in the defence of its young, is not a true test of its strength or quality. It is only in the few isolated cases of a voluntary sacrifice of the parent, foreknowing the result, that it can be said the act was due to the instinct. In most cases it is under the belief in its ability to rescue the one in danger, but the parent is not wholly aware of its own danger.

I doubt if any animal except man ever deliberately offered its own life as a ransom for that of another, and such instances in human history are so rare as to immortalise the actor.

To whatever extent the instinct may be found, it is much stronger in the female than in the male, and it appears to be stronger in domestic animals than in wild ones. To what extent this is due to their contact with man, it is difficult to say. The germ may be inherent, but it certainly yields to culture.

The fact of the ape deserting its offspring under certain conditions, may be taken as an evidence of its superior intelligence and its appreciation of life and danger, rather than a low, brutish impulse. It is the exercise of superior judgment that causes man to act with more prudence than other animals. It does not detract from his nobleness.

Within the family circle of the chimpanzee the father is supreme; but he does not degrade his royalty by being a tyrant. Each member of the family seems to have certain rights that are not impugned by others. For example, possession is the right of ownership. When one ape procures a certain article of food, the others do not try to dispossess it. It is from this source, doubtless, that man inherits the idea of private ownership. It is the same principle amplified by which nations hold the right of territory, but nations often violate this right, and so do chimpanzees when not held in check by something more potent than a sense of justice. With all due respect, I do not think the ape abuses the right by urging his claim beyond his real needs, while nations sometimes do.

When a member of a family of apes is ill, the others are quite conscious of it, and evince a certain amount of solicitude. Their conduct indicates that they have, in a small degree, the passion of sympathy, but the emotion is feeble and wavering. So far as I know, they do not essay any treatment, except to soothe and comfort the sufferer. They surely have some definite idea of what death is, and I have reason to believe that they have a name for it. They do not readily abandon their sick, but when one of them is unable to travel with the band, the others rove about for some days, within call of it, but do not minister to its wants.

It is said, if one of them is wounded, the others will rescue it if possible, and convey it to a place of safety; but I cannot vouch for this, as such an incident has never come within my own experience.

One of the most remarkable of all the social habits of the chimpanzee, is the *kanjo*, as it is called in the native tongue. The word does not mean "dance" in the sense of saltatory gyrations, but implies more the idea of "carnival." It is believed that more than one family takes part in these festivities.

Here and there in the jungle is found a small spot of sonorous earth. It is irregular in shape, but is about two feet across. The surface is of clay, and is artificial. It is superimposed upon a kind of peat bed, which, being very porous, acts as a resonance cavity, and intensifies the sound. This constitutes a kind of drum. It yields rather a dead sound, but of considerable volume.

This queer drum is made by chimpanzees, who secure the clay along the bank of some stream in the vicinity. They carry it by hand, and deposit it while in a plastic state, spread it over the place selected, and let it dry. I have, in my possession, a part of one that I brought home with me from

the Nkami forest. It shows the finger-prints of the apes, which were impressed in it while the mud was yet soft.

After the drum is quite dry, the chimpanzees assemble by night in great numbers, and the carnival begins. One or two will beat violently on this dry clay, while others jump up and down in a wild and grotesque manner. Some of them utter long, rolling sounds, as if trying to sing. When one tires of beating the drum, another relieves him, and the festivities continue in this fashion for hours.

I know of nothing like this in the social economy of any other animal, but what it signifies, or what its origin was, is quite beyond my knowledge. It appears probable that they do not indulge in this *kanjo* in all parts of their domain, nor do they occur at regular intervals.

The chimpanzee is averse to solitude. He is fond of the society of man, and is easily domesticated. If allowed to go at liberty, he is well-disposed, and is strongly attached to man, but if confined, he becomes vicious and ill-tempered. All animals, including man, have the same tendency.

Mentally the chimpanzee occupies a high plane within his own sphere of life, but within those limits the faculties of the mind are not called into frequent exercise, and therefore they are not so active as they are in man.

It is difficult to compare the mental status of the ape to that of man, because there is no common basis upon which the two rest. Their modes of life are so unlike, as to afford no common unit of measure. Their faculties are developed along different lines. The two have but few problems in common to solve. While the scope of the human mind is vastly wider than that of the ape, it does not follow that it can act with more precision in all things. There are, perhaps, instances in which the mind of the ape excels that of man, by reason of its adaptation to certain conditions. It is not a safe and infallible guide to measure all things by the standard of man's opinion of himself. It is quite true that, by such a unit of measure, the comparison is much in favour of the man, but the conclusion is neither just nor adequate.

It is a problem of great interest, however, to compare them in this manner, and the result would indicate that a fair specimen of the ape is in about the same mental horizon as a child of one year old. But if the operation were reversed, and man were placed under the natural conditions of the ape, the comparison would be much less in his favour. There is no common mental unit between them.

The chimpanzee exercises the faculty of reason with a fair degree of precision, on problems that concern his own comfort or safety. He is quick to interpret motives, to discern intents, and is a rare judge of character. He is inquisitive, but not so imitative as monkeys are. He is more observant of the relations of cause and effect, and in his actions he is controlled by more definite motives. He is docile, and quickly learns anything that lies within the range of his own mental plane.

The opinion has long prevailed that these apes subsist upon a vegetable diet, but such is not in anywise the case. In this respect their habits are the same as those of man, except that the latter has learned to cook his food, while the former eats his raw.

Their natural tastes are much diversified, and they are not all equally fond of the same articles of food. Most of them are partial to the wild mango, which grows in abundance in certain localities in the forest, and is often available when other kinds of food are scarce. It thus becomes, as it were, a staple article of food. There are many kinds of nuts to be found in their domain, but the oil palm nut appears to be a favourite. They also eat the kola nut, when it is to be had. Several kinds of small fruits and berries also form a part of their diet. They eat the stalks of some plants, the tender buds of others, and the tendrils of certain vines, the names of which I do not know.

Most of the fruits and plants that are relished by them are either acidulous or bitter in taste, and they are not especially fond of sweet fruits, if they can get those having the flavours mentioned. They eat bananas, pine-apples, and other sweet fruits, but not from choice. Most of them appear to prefer a lime to an orange, a plantain to a banana, or a kola nut to a sweet mango, but in captivity they acquire a taste for sweet foods of all kinds.

In addition to these articles they devour birds, lizards, and small rodents. They rob the birds of their eggs and their young. They make havoc on many kinds of large insects. Those that I have owned were fond of cooked meats and salt fish, either raw or cooked.

CHAPTER VI
THE SPEECH OF CHIMPANZEES

The speech of chimpanzees is limited to a few sounds, and these are confined chiefly to their natural wants. The entire vocabulary of their language embraces perhaps not more than twenty words, and many of them are vague or ambiguous, but they express the concept of the ape with as much precision as it is defined to his mind, and quite distinctly enough for his purpose.

In my researches I have learned about ten words of his speech, so that I can understand them, and make myself understood by them. Most of these sounds are within the compass of the human voice, in tone, pitch, and modulation; but two of them are much greater in volume than it is possible for the human lungs to reach, and one of them rises to a pitch more than an octave higher than any human voice. These two sounds are audible at a great distance, but they do not fall within the true limits of speech.

The vocal organs of this ape resemble those of man as closely as any other character has been shown to resemble. They differ slightly in one detail that is worthy of notice. Just above the opening called the glottis, which is between the vocal cords, are two small sacs or ventricles. These, in the ape, are larger and more flexible than in man. In the act of speaking they are inflated by the air passing out of the lungs through the long tube called the larynx. The function of these organs is to control and modify the sound by increasing or decreasing the pressure of the air that is jetted through this tube. They serve, at the same time, as a reservoir and a gauge.

In the louder sounds produced by the chimpanzee these ventricles distend until the membrane of which they are composed is held at a high tension. This greatly intensifies the voice, and increases its volume. It is partly due to these little sacs that the ape is able to make such a loud and piercing scream. But the pitch and volume of his voice cannot be due to this cause alone, for the gorilla, in which these ventricles are much smaller, can make a vastly louder sound, unless we are mistaken about the one ascribed to him.

Although the sounds made by the chimpanzee can be imitated by the human voice, they cannot be expressed or represented by any system of phonetic symbols in use among men. All alphabets have been deduced from pictographs, and the symbol that represents any given sound has no reference to the organs that produced it. The few rigid lines that have survived to form the alphabets are conventional, and within themselves meaningless, but they have been so long used to represent these sounds of speech that it would be difficult to supplant them with others, even if such were desired.

As no literal formula can be made to represent the phonetic elements of the speech of chimpanzees, I have taken a new step in the art of writing by framing a system of my own, which is rational in plan and simple in device.

The organs of speech always act in harmony, and a certain movement of the lips is always attended by a certain movement of the internal organs of speech. This is true of the ape as well as of man, and in order to utter the same sounds each would employ the same organs, and use them in the same way.

By this means, deaf mutes are able to distinguish the sounds of speech and reproduce them, although they do not hear them. By close study and long practice they learn to distinguish the most delicate shades of sound.

In this plain fact lies the clue to the method I have used. It is, as yet, only in the infant state, but it is possible to be made, with a very few symbols, to represent the whole range of vocal sounds made by man or other animals.

The chief symbols I employ are the parentheses used in common print. The two curved lines placed with the convex sides opposite, thus, (), represent the open glottis, in which position the voice

will utter the deep sound of "O." The glottis about half closed utters the sound of "U," as in the German, and to represent this sound a period is inserted between the two curved lines, thus, (.). When the aperture is contracted still more it produces the sound of "A" broad, and to represent this a colon is placed between the lines, thus, (:). When the aperture is restricted to a still smaller compass the sound of "U" short is uttered, and to represent this an apostrophe is placed between the lines, thus, ('). When the vocal cords are brought to a greater tension, and the aperture is almost closed, it utters the short sound of "E." To represent this sound a hyphen is inserted between the lines, thus, (-). These are the main vowel sounds of all animals, although in man they are sometimes modified, and to them is added the sound of "E" long, while in the ape the long sounds of "O" and "E" are rarely, if ever, heard.

Конец ознакомительного фрагмента.