

PSYCHOLOGY

The Wolf-Girls and the Baboon-Boy

Scientists Study With Interest Reports of Children Said To Have Been Brought Up By Animals in the Wild

By LOIS MATTOX MILLER

FROM Romulus and Remus, mythical founders of Rome, through Kipling's Mowgli to Tarzan, stories of human babies adopted by wolves, bears, or apes, and reared to super-manhood far from human society have fascinated people of all ages in all climes. Scientists, always sceptical of the unauthenticated, have nevertheless searched for evidence of weird reality behind so persistent a myth pattern. Ever since ancient Rome, reports have circulated of actual "wild children," half-beast and half-human, inhabiting the caves and prowling through the forests of Europe, Africa, and Asia. Such tales, when they could be tracked down at all, usually turned out to be cases of abandoned waifs, some with subnormal intelligence, but without conclusive evidence of animal foster-parentage.

But now, for the first time, science has evidence of two cases of humans who may have been reared by wild animals: the tragic Wolf-children of Midnapore; and Lucas, the Baboon Boy of South Africa.

Reported By Missionary

The Rev. J. L. Singh, a native Christian missionary who supported, out of his own poor pocket, an orphanage at Midnapore, India, was besought by the natives of a nearby village to rid them of the "man ghost" who inhabited a giant ant-hill on the borderlands. To satisfy his converts, Rev. Singh organized a small party, including several British residents, and set up a watch over the ant-hill at nightfall on October 9, 1920. Suddenly, in the twilight, they saw two full-grown wolves emerge from the tunnel, followed by a third wolf and two cubs. Close on the heels of the cubs, says the Rev. Mr. Singh, came a "hideous looking little creature—hand, foot and body like a human," followed by a similar creature even smaller in size. "Their eyes were bright and piercing, unlike human eyes," he says. "Yet I at once came to the conclusion that these were children."

The wolf-den was excavated a week later. Two male wolves escaped across the fields, but the she-wolf defended the lair

so viciously that she had to be killed. Huddled in one corner of the den, "all four clutching together in a 'monkey-ball,'" the Rev. Singh found the two cubs and two children—both girls, one seemingly about eight years old, the other about a year and a half. The children were more ferocious than the cubs. They had to be bound up in sheets to be taken to the mission-orphanage in Midnapore.

The skill, understanding, and unending patience with which the India missionary and his wife sought to restore these strange wolf-children to the ways of human life have since won general applause. The task presented insuperable difficulties. The habits of Kamala and Amala, as the Singhs named them, were animal rather than human. They would tolerate no clothing on their bodies. Long matted hair fell below the shoulders; their jaws were reported to have had a strange wolf-like formation; their teeth were sharp and pointed, and the interior of their mouths animal-like. They would eat no vegetable food, but could scent raw meat at a long distance. They were incapable of standing erect, but could move on all fours with amazing speed. They slept or drowsed through the day, but were wide awake, unafraid, and eager to prowl at night. They disliked and avoided human society and sought the company of the dogs, kids and goats on the mission farm. Strangely, the animals sought out the children and were friendly and without fear.

Died of Nephritis

Very slowly at first, with Amala, the younger child, always leading the way, the girls began to respond to the kindness and affection of Mrs. Singh, who fed and nursed them, patiently massaging their bodies and legs and giving them exercises which she hoped would teach them to walk erect. Still more animal than human, they seemed to be making progress when, eleven months after their discovery in the wolf-den, Amala succumbed to an illness diagnosed as "nephritis and general edema."

At Amala's death, the older girl was seen to shed one tear—her first sign of

human emotion. For weeks she lingered over the places where Amala had sat and slept, sniffing anxiously like a dog, and uttering a strange cry that was neither animal nor human. Amala, the younger child, had been the leader in the difficult adjustment to human environment; and for Kamala this loss of her "sister" became a serious setback.

Then Kamala drew closer to Mrs. Singh, and gradually began to take some interest in the other children in the nursery. She ceased to wolf her food by putting her head to the plate; and learned to use a cup instead of lapping up liquids. She developed a vocabulary of about 40 words, always imperfectly enunciated. She not only accepted clothing, but demanded her "fok" (frock) when leaving the house or appearing before strangers. With amazing patience, Mrs. Singh taught Kamala to stand erect and use her two legs for walking. Her gait was slow and unsteady, and for running she always returned to all fours. When she ran thus, it was difficult for anyone to overtake her.

Became Lovable and Affectionate

After nine years in human environment, Kamala lost most of her animal traits, and showed signs of developing into a lovable, affectionate, and obedient child. She was a favorite in the orphanage. Then she fell ill of the same illness that had caused Amala's death. She died on November 14, 1929, and was buried beside Amala in the churchyard of St. John's Church at Midnapore.

Dr. S. P. Sarbadhicari, the physician who attended both children, writes:

"There was great difficulty in feeding the poor wolf-girls anything but meat and milk. If they could have been induced to take proper mixed diet with properly balanced vitamins, improvement would have been more marked and they could have returned to an ordinary human condition from the stage of animal."

The remarkable record of the Wolf-children which the Rev. Singh kept in his diary has been studied by a number of distinguished scientists, including Professor R. Ruggles Gates, University of London, and Professor Arnold Gesell, Yale Clinic of Child Development. It is now being prepared for publication by Professor Robert M. Zingg, University of Denver, and the entire proceeds are to

go to the support of the impoverished mission-orphanage where Amala and Kamala spent their brief time in human society.

"The career of Kamala, even though cut short," writes Professor Gesell, "demonstrates anew the stamina of the human spirit. The events have a poignant significance for anyone who is interested in the nature and growth of the human mind."

The "Baboon Boy"

Lucas, the Baboon Boy, still survives on a farm in South Africa, a strange, childish man nearly 50 years old. According to report, the officers of the old Cape Mounted Police, Lance Sergeant Charles Holsen and Sergeant J. P. Venter, were riding through the wild regions of the South East Cape some 40 years ago when they came upon a troop of young baboons playing together in a clearing. For the sport of it, one officer fired a shot into the group and the apes scattered, all except one who lingered behind. Fearful that they had wounded it, the officers rode into the clearing and overtook the creature. It proved to be a fully developed native boy, who chattered like an ape and jumped about on all fours.

The police canvassed the native villages of the district, but found no reports of a missing child, and no one who could identify the baboon boy. He was then taken to a mental hospital.

A half-breed boy was received at the Mental Hospital at Grahamstown, where he was entered March 30, 1904. The doctors found him suffering from acute mania. His father and mother were unknown, but no mention of baboons occurs in the hospital records. He was said to be extremely mischievous and "full of monkey tricks." He knew no human speech, and refused all food except raw corn and cactus and has been seen to eat 89 prickly pears in one sitting. Physically, he was emaciated and had had a fracture of the skull.

He was finally discharged into the custody of George H. Smith whose brother was on the hospital staff and who owned Thornhill Farm, Shaw Park. There Lucas—as Mr. Smith named him—resides to this day. He has become a useful worker on the farm, but has to be called to each specific task each time.

Lucas' story was spread by word of mouth for years before Professor Raymond A. Dart, University of Witwatersrand, Johannesburg, began a serious investigation.

His protector, Mr. Smith, is quoted in a letter from a reporter of the Johannes-



PLAYMATES

Little Donald Kellogg keeps in perfect step with his ape playmate Gua, who learned to wear human clothes and do the things a human baby does in an experiment conducted by Donald's psychologist father, Dr. W. N. Kellogg, in 1931.

burg Star as saying: "His profile, mannerisms, long arms and abnormal development of the haunches, the constant jerking and nodding of the head, the scratching of parts of the body with the index finger, and his peculiar, frightened-looking grin, all tell their tale of his early association with the baboons."

Smith believed that Lucas had been stolen by baboons as a young baby. When captured, he knew no language. Years later, when he had learned a few words of English, Lucas told how he and the baboons had raided ostrich nests and stolen eggs. He pointed to the scar on his head and said it was caused by the kick he had received from one outraged ostrich.

Professor Dart's investigation stirred considerable interest in scientific circles. "To me there seems nothing miraculous or improbable in it," said one investigator of Lucas' story. "Any nursing female baboon might find it convenient, or at least instinct, to steal a suckling animal so closely resembling her own . . . The part to be cleared up is the part played by the police."

Unfortunately, Lance Sergeant Holsen and Venter were dead. But several of their contemporaries on the force made affidavits that they had heard the story from Holsen's own lips, and Constable W. J. Coetzer declared: "Holsen and

Sergeant J. P. Venter certainly were not the sort of people to make up a yarn." Lucas' own affidavit states: "I can recall only a few incidents of my life amongst the baboons. My food consisted mainly of crickets, ostrich eggs, prickly pears, and wild honey . . . I was hunting for food one day with my baboon companions when two policemen shot at us with revolvers. I tried very hard to escape, but I was captured and carried away on a horse by one of the policemen."

The records of the Grahamstown Mental Hospital mention one "Kafir boy approximately 13 years of age" admitted as an "indoor pauper". Nothing was known of him or his people, but the cause of admission was listed as "injury to the head." The record noted: "Foolish and nervous manner. He is destructive to his clothes and dirty in his habits. Laughs without cause and tries to stand on his head." There is no mention of the baboon background. The hospital is a considerable distance from the spot where the "Baboon Boy" was reported found.

Dr. J. A. van Heerden of the Grahams-town Hospital visited Lucas on November 29, 1939, and reported:

"His demeanor is silly and childish. He is clumsy and ungainly in all muscular movements. He has a poor vocabulary in English but is able to express himself fairly well. He is reminiscent and

appears to have a compulsion to relate how he acquired the scar on his cranium. He uses the expression, 'Koelie kicked me.'

Dr. Dru Drury, of Grahamstown, who went with Dr. van Heerden to examine Lucas, concluded that Lucas was a normal half-breed boy until his brain was damaged by an accident which fractured his skull in childhood.

So much for the documented recent cases; there are plenty of older stories where some facts are known. Sir William Sleeman, governor at Lucknow, India, in the 1850's, recorded that "hundreds" of children were carried off by wolves in his time, and that he heard of six cases which he regarded as reasonably well-established in which the children lived with their animal foster-parents. He told of a little boy captured in a raid on a wolf den at Sultanpoor who lived three years in captivity, but remained always savage and filthy, his only affection being spent on a mongrel dog. He would eat nothing but raw meat, would wear no clothing and snarled at children, though he seemed afraid of grown-ups. At his death, he uttered the only words he was ever heard to speak. He put his hands to his head and said, "It hurts."

Another boy, captured with wolves and brought into Rondee, had to be tied to a tent-stake for about four months, but after that began to understand and obey signs, and learned to perform small services, like preparing and lighting a hookah. He learned to pronounce one word—the name of a little Cashmir girl who was kind to him. Wolves were seen to approach and play with him at night. Eventually, he escaped and never was seen again.

Wild Boy of Aveyron

Itard, a famous pioneer psychologist and educator, tried for five years to teach human ways to a boy found when he was about 11 years old, naked and running wild in the forest in the Department of Aveyron, France, in 1795. He refused to wear clothes, curled himself into a ball to sleep, was strong, quick and flew into rages. He learned little, though eventually he was taught to eat cooked food. He died, still sub-normal by human standards, when he was about 40.

"Wild Peter" was described by Linnaeus, the great Swedish pioneer in science. "Wild Peter" was a boy found at "hay-making time" in 1724 near Hameln, Germany, and decoyed into captivity by offering him apples. Taken to England, King George I saw him in 1726 and had him turned over to the

Princess of Wales, later Queen Caroline. He died in 1785 in the home of a tenant farmer in Herfordshire. He never learned to speak, and liked best as diet the bark of green twigs. He chewed grass, cabbage, and bean plants merely to get the juices. Swift, Buffon and others studied him. He was good-natured, unlike most of the wild-reared children. "But," remarked a scientist of that day, "laughter, which is the particular gift of mankind, was never heard from him."

There comes down to us also, in Latin, an account of a wolf boy of about seven captured by hunters in Hesse, in 1344. He was taught to walk and to talk, and related dim memories of being carried off by wolves when, as he later guessed, he was about three years old. He was brought to the court of the Landgraf as a great curiosity.

Seek Light on Environment

These old records make it certain that strange, half-wild children had actually been found but stories that the children had been reared by animals had always been dismissed by modern research men as the attempts of an unscientific age to explain puzzling phenomena. Now, in the light of the well-established cases of the Midnapore wolf-girls and the living Baboon boy, they are turning back to these old records with renewed interest. To the casual reader, these are just fascinating wonder-tales; but the scientists look to them to throw light on the relative importance of heredity and environment in shaping behavior patterns.

Unfortunately, there is no way of knowing, in the case of any of these wild children just what their mental condition was at birth or before they were deprived of human society.

Perhaps they were feeble-minded or mentally diseased before their life in the wild began. Physicians could probably match much of the peculiar behavior described from their case records of civilized children who are mentally defective. It is not at all uncommon for normal children to run on all fours.

Many idiots tear off clothing and even tear their own flesh unless restrained. Their ways of eating are primitive unless they receive careful and patient training. Their language is likely to resemble animal grunts.

In India it was an ancient custom to expose to wild beasts unwanted babies, particularly girl infants or babies born under an "unlucky star," and this practice may still be followed to some extent in remote places today. So it is entirely possible that the "wild girls" were given

up by their parents because they were not attractive babies or because the parents were irresponsible.

Lacking information about the original, hereditary mental equipment of these babies, scientists cannot judge what may have been the effect of the strange environment in which they spent their childhood. And no scientists could think of deliberately exposing a child of known parentage and tested intelligence to such a hazard.

Brought Up Ape With Baby

The greatest light on the subject so far obtained was the result of reversing the experiment when Dr. W. N. Kellogg in 1931 brought an ape baby into his home and brought it up with his own child as if it were a human infant.

Gua, the ape baby, learned to walk upright, to eat with a spoon and drink from a cup. She played with blocks and rolled a ball as did her human playmate. She learned human habits of cleanliness. And, because an ape develops more rapidly than does a human baby, she learned these "human" habits more rapidly than did little Donald who shared the nursery with her. From this experiment, Dr. Kellogg concludes that environment may strikingly modify the habits and mode of living of higher organisms.

Although few of us would like to take the chance of allowing a human baby to play with wolves, scientists would hesitate to declare that the mothering of human infants by female lower animals is impossible. When an animal is preparing for motherhood, building her nest or caring for her own brood of young, she will often adopt the young of other species and will take them in and care for them as though they were her own.

Humans, being very intelligent among animals, would probably adapt to their

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infra-human environment as well as their physical make-up would permit. They can ape better than the apes. A human child living among apes or

wolves would be expected to do as the apes or wolves do. This might indicate high intelligence rather than low.

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AERONAUTICS—RADIO

New Rotating Radio Beam Directs Pilot to Fixed Beacon

BY MEANS of a radio beam which sweeps around the horizon 60 times a second, airplane pilots can now find their course to a fixed beacon at all times.

A dial on the instrument board displays a circle of light, around which an indicating mark moves to show the direction of the plane from the beacon.

Dr. David G. C. Luck described the new device to members of the Institute of Radio Engineers at their Boston meeting. It was developed under his supervision in four years of research at the RCA Laboratory at Central Airport, Camden, N. J., and is known as the "omni-directional radio range beacon," and operates on ultra-high-frequency, minimizing the effect of static. It also permits the use of a small, two foot high, antenna, instead of a group of high towers.

Previous radio beacons confine the pilot to a definite course. As long as he is following the course he knows it. If he goes off, he is also informed. But, though he can tell which way he is off, he cannot tell how far he has left the course, nor what direction his destination may be. To provide this information, some air lines have used direction finders

on the plane, which show the direction to the beam transmitting station from the plane, but these are not satisfactory in the ultra-high-frequencies.

Dr. Luck described the operation of the new system as follows:

"If the pilot must fly around bad weather on his regular course, he can always 'see' his direction from the radio station at a glance. If he wants to fly straight into or out from the beacon, he has only to hold the mark steady at that course against a scale on the instrument face.

"All this works like a lighthouse that sends out two kinds of light, one a beam which sweeps around steadily and the other a flash sent out in all directions just as the beam points north. Time the interval from the flash until the beam sweeps over you, and you know your exact direction from the lighthouse.

"In this new radio range, the radio lighthouse is on the ground and on the plane the indicating instrument automatically times the flash and beam. All this is done electrically, and our lighthouse beam sweeps clear around 60 times each second."

Science News Letter, July 13, 1940



IN SMALL COMPASS

Instead of five 125-foot towers, required for long wave radio range systems now in use, these five two-foot metal rods are all the antennae needed for the new Omnidirectional Radio Range Beacon, developed at the RCA research laboratories in Camden.

at strategic points all over the Near East. Controlling channels of trade, they enjoyed wealth, amid the poverty and hunger of the conquered.

However, says Dr. Wilson, their "frightful engines of speed and power, meaning horses and chariots, could not be kept out of Egyptian hands. And Egypt, re-armed, and stiffened by a united spiritual force, smashed the Hyksos confederacy in battle, battered open the supposedly impregnable fortresses and threw the invaders out of Egypt. That did not happen until May 12, 1468 B.C.

The liberated Egyptians then turned to empire-building, themselves. Astutely timing their advance, they advanced toward Hyksos-controlled Palestine and Syria in spring, when their own harvest was in, while the more northerly lands were still being worked by the manpower. Outwitted by this strategy, the people and their food supply were soon at the mercy of the Egyptians.

In a later era, the Egyptian empire fell victim to fifth column tactics, Dr. Wilson shows. Powerful Hittites, living where modern Turkey is now, formed a fifth column among disloyal and discontented Egyptians of upper classes, while the Pharaoh Akhnaton was devoting himself to idealistic religious reforms, ignoring danger trends.

"There were many," says Dr. Wilson, "who took bribes of the Hittites to work

ARCHAEOLOGY

Blitzkrieg, Secret Weapons Downed Ancient Egypt

IF NAZI Germany continues to repeat the conquering career of the Asiatic Hyksos nearly 1800 years before Christ, civilizations now trampled may expect to rise and fight again, and win. But not very soon.

Citing the Hyksos lesson from history, Dr. John A. Wilson, director of the University of Chicago's Oriental Institute, finds that these Asiatic soldiers of adventure effectively used the modern

German formula of secret weapons, launched with blitzkrieg speed and surprise. Turning horses and chariots suddenly into the midst of old-fashioned Egyptian and Babylonian foot soldiers, the Hyksos spread terror and confusion, as the flying chariots wheeled and advanced, and mowed down the unprepared men.

In the peace following conquest, the Hyksos planted impregnable fortresses