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TARZAN AND THE WILD CHILDREN

IS A PERSON BASICALLY what he is endowed to be by nature or is he what he has been nurtured to become? Put another way, is it man's heredity or his environment that determines his role in life? Is man destined by genetic endowment to act out a predetermined role, or is his pattern of behavior molded primarily by his learning experiences? ✓

[IT IS A PLEASURE TO ME to find that one does not always have to look through the remote recesses of the library where the dusty, seldom used tomes are kept, to shed light on some of our most relevant questions.] Often those writers whose work we read primarily for pleasure can be very educational. Such is the discovery I made when I read for the first time (just a few years ago) the Edgar Rice Burroughs novel, Tarzan of the Apes,¹ a fascinating book that raises many of the basic questions about human behavior development.

✓ MY MOST VIVID CHILDHOOD MEMORIES of Tarzan had been of the Johnny Weissmuller movies, of which an even dozen were produced between 1932 and 1948. And when I think of Tarzan I will always have a mental picture of that huge, muscular, Olympic swimming champion, [whose physique would have made Mark Spitz look like a skinny kid,] gliding through the jungle and screaming that bloodcurdling Tarzan yell (a cross between a yodel and the scream of a hyena).

¹Burroughs, E.R. Tarzan of the Apes, New York: Grosset and Dunlap, 1939.

WEISSMULLER WAS NOT, OF COURSE, the only movie Tarzan. To date, some 16 different Tarzans have graced the silver screen, since the silent movie version, produced in 1918 and filmed in Louisiana, became the first motion picture to gross over one million dollars. That first movie Tarzan had the unlikely name of Elmo Lincoln, a Santa Fe railroad brakeman who could, on taking a deep breath, expand his pectoral girth to 54 inches. (Actually, Lincoln was the fourth and not the first Tarzan, but the first three were all injured falling from limbs during the filming, so Lincoln was only the first Tarzan to complete a movie.)

THE TARZAN PHENOMENON found its way into other media and became one of entertainment's most profitable ventures. I am not sure how the Ape Man would rank with Mickey Mouse as a money maker, but I doubt that any other fictional character would compare with him. By 1940 the gross income from the Tarzan Enterprises had passed one hundred million dollars, and though income attributed to his name in 1973 alone exceeded fifteen million dollars, there is no way of knowing how far the figure may have climbed by now.

TARZAN

✓ THE ORIGINAL STORY was first published in the October, 1912, issue of the All-Story magazine. The author used the pen name Normal Being, which was misread by the typesetter and came out in that initial story as Norman Bean. Who would have guessed that that first handwritten manuscript would someday be of such value that it would rest in a Bank of America vault in Los Angeles, California?

✓ *IT WAS TWO YEARS before book publishers would consider Tarzan, but from the first the novel became one of the bonanzas of romantic fiction.*

IN 1929 TARZAN BECAME the first adventure comic strip. As a radio program, Tarzan ran from 1932 to 1952, finally felled by the advent of television, which also later ran a Tarzan series. The Tarzan comic books began in 1940, and single issues of that first publication, which sold for ten cents, have brought as much as \$280!

BURROUGHS' FAMOUS 550-ACRE RANCH, Tarzana, located in the San Fernando Valley, became the headquarters of the Tarzan enterprises. From this California office, itself nestled in a thick jungle, Burroughs turned out additional Tarzan stories (of which there were 26 in all).

✓ ONE OF BURROUGHS' GREAT DISAPPOINTMENTS was the way his hero was interpreted by movie makers after the advent of talking pictures. Everyone remembers the "Me Tarzan, you Jane" dialogue of the Weissmuller and other films. But this characterization of the Ape Man was nothing like that which Burroughs had originally conceived. My own concept of Tarzan was that of the Weissmuller movies until I first read the original Tarzan of the Apes and saw that Burroughs' character was far more sophisticated and intelligent than the movie version.

✓ *BURROUGHS HAD SEEN HUMAN DEVELOPMENT, regardless of circumstances, as being determined mainly by genetic endowment.*

✓ In the original story, Tarzan was the son of British nobility, Lord and Lady Greystoke, and his given name was John Clayton. After a ship's mutiny off the West African Coast, the Greystokes were put ashore, where they built a hut and were trying to survive in the wilds when they were attacked by a huge gorilla. Lady Alice Greystoke, who was pregnant at the time, shot and killed the gorilla, but the shock of the encounter proved too much, and that same night she delivered her son. She died a few months later, shortly after which Lord Greystoke was killed in a raid by the great apes.

✓ THE INFANT, JOHN CLAYTON, was found and suckled by Kala, a ferocious female ape, who had just lost her own offspring. It was she who named him Tarzan, which in convoluted ape vocabulary, was Tar for white and Zan for skin. ✕

[THOUGH BURROUGHS GAVE NO HINT that Tarzan was anything but fiction, there is a theory that the stories were based on actual events. The author does introduce the original story by saying that the first part was told him over several glasses of wine by someone with firsthand knowledge, and that he put the other pieces together from records of the British Colonial Office and the diary of a dead man, presumably Tarzan's English father. But this manner of introducing fictional works is not unusual, and we have Burroughs' own later word to the effect that it was entirely fictional.]

THE STRONGEST ADVOCATE of the non-fiction theory is a professional writer named Philip Jose Farmer who, in 1972, wrote what he called a "definitive biography of Lord Greystoke."² In this book he claims not only to have records to prove that the Tarzan story was based on fact, but to have been given a 15-minute audience with Tarzan himself (a man in his 80's) for which he flew all the way to Africa.

I HAVE READ MR. FARMER'S BOOK and found some of his ideas interesting but farfetched, and I do not think he presents any real proof that Tarzan was an actual person.

ON AT LEAST ONE OCCASION, in a newspaper article, Burroughs commented on this theory directly, and I quote: "... Tarzan is purely the product of my imagination. I always like to think of him as a real character, but the fact remains that he was merely an interesting experiment in the mental laboratory which we call imagination."³

✓ *IN BURROUGHS' STORY OF TARZAN'S early life among the apes, the boy was reasonably happy but was somewhat humiliated by certain differences between himself and his companions. The apes matured faster than he, and the young Tarzan was the weakest of the tribe. Though the apes were sometimes amazed by his superior cunning, it is likely that he would have been left to*

²Farmer, P. J. Tarzan Alive. New York: Doubleday and Company, Inc., 1972.

³The Daily Maroon, University of Chicago, May 31, 1927.

die in the tall grasses had it not been for the love and protection of Kala, his ape-mother. X

ON ONE OCCASION, Tarzan, ashamed of his smooth, clear skin, covered himself with mud, which soon dried and flaked off. When he first saw himself mirrored in a pool of water, he was shocked by his own ugliness. His small, thin lips and narrow, pinched nose were so inferior to the mighty lips and fangs and broad, flat noses of his brothers. Tarzan was about 13 years old when he found the hut in which there still lay, untouched, the bones of his parents, though, of course, he knew nothing of his relationship to them. He was fascinated by the pictures in the books he found there. Eventually he was able to understand what he had at first taken to be pictures of "small bugs," by which he actually had reference to the print in the books. Finally he taught himself to read and to understand much of the literature which his parents had left in the jungle hut.

BY AGE 18 THE YOUNG TARZAN, who could speak no English, could write with printed letters. He read fluently, and understood nearly all he read in the many and varied volumes on the shelves. Never had he seen a human being other than himself. X

THE DILEMMA of his ape-human heritage is underscored by an anecdote concerning his first encounter with another human being. Without provocation, Tarzan coldbloodedly killed Kulonga, a black native. After lassoing and hanging the native, Tarzan had plunged his knife into Kulonga's heart, and was about to

commit an act of cannibalism, following the law of the jungle he had been taught by the apes, namely that one may eat the flesh of even his own kind when he has killed another in the hunt. At this point he remembered, however, that he had learned from the books that he was a man, as this was a man. Not certain whether men ate men, he was overcome with nausea and could not eat the flesh of another human being.■

✓
BURROUGHS STATED LATER that Tarzan probably had his origins in his mind by borrowing from the legend of the founding of Rome, Romulus and Remus having been fed at the breast of a she-wolf enroute to founding an empire. What could we expect a child reared without the normal human environment to be like? There are more than fifty variously documented records of children actually reared by wild animals, including apes, panthers, leopards, and bears, though most often by wolves. Rudyard Kipling based his story of Mowgli in The Jungle Book⁴ on the many stories of wolf children which he had heard in India.

LINNAEUS, IN A BOOK published in 1735,⁵ reported on ten such children, eight girls and two boys, including one male child taken in Lithuania, who had been reared by bears. The authors Singh and Zingg published a book in 1942 called Wolf Children and Feral Man, which included an account of the famed "Wolf Girl of India."⁶

⁴Kipling, R. The Jungle Book.

⁵Linnaeus, System of Nature, 1735. (See Itard, op.cit.)

⁶Singh, Jal, and Zingg, R.M. Wolf Children and Feral Man, Harper, 1942.

STILL LATER, in 1964, Malson, a French author, published a book that described accounts of 53 wild children.⁷ Since that time several more have been reported. The most famous of all time is Victor, the wild boy of Aveyron.

THIS FASCINATING STORY begins during the later stages of the French Revolution, when there lived in Paris a young medical man, Jean-Marc Itard, who had earlier achieved some distinction in his profession and at the age of 25 was appointed physician to the new institution for deaf mutes.⁸

IN 1799 IT WAS REPORTED that a wild boy had been taken in the woods of Aveyron. According to reports, the child was a specimen of primitive humanity. He had been found by a group of hunters, unclad, wandering about the outskirts of the forest in which he had apparently lived for some years, a stranger to human kind, eeking out a precarious existence as best he could. It was assumed that he had been lost or abandoned as an infant and reared by wolves.

BROUGHT TO PARIS by the French government for observation and study, the wild boy of Aveyron was described as "a degraded being, human only in shape; a dirty, scared, inarticulate creature who trotted and grunted like the beasts of the fields, ate with apparent pleasure the most filthy refuse ... and spent

⁷Melson, Lucien. Les Enfants Sauvages, 1964.

⁸Itard, J.M. The Wild Boy of Aveyron. Translated by George and Muriel Humphrey. Appleton-Century-Crofts, 1932.

his time apathetically rocking himself backwards and forwards like the animals at the zoo." The boy was placed under the care of Dr. Itard at the institution over which he presided.

WHY SHOULD THE OPTIMISTIC young doctor have believed that he could civilize such an unfortunate creature? A quote from his own writings sheds some light on his strong, environmentalist philosophy: "In the most vagrant and barbarous horde," wrote Itard, "as well as in the most civilized nation of Europe, man is only what he is made. Necessarily brought up by his own kind, he has acquired from them his habits and his needs; nor are his ideas any longer his own. He has enjoyed the fairest prerogative of his kind, the capacity of developing his understanding by the power of imitation and the influence of society."

UNFORTUNATELY, ITARD WAS TOO OPTIMISTIC, and the wild boy never developed to the point Itard had hoped. He learned to walk upright, to eat with regular utensils, and to use a few words, but he could communicate very little with any humans other than Itard and a nurse. He was shy and did not relate well to people. Highly susceptible to viral infections, he died ~~at~~ ~~about age 40~~ of a respiratory ailment, perhaps ^a ~~the~~ victim of the civilized environment to which he could never adapt, and for which he had not in childhood developed the normal immunities.

ITARD WAS VERY DISAPPOINTED by the results because he had held unrealistic beliefs in his ability to rehabilitate the boy. One theory is that the boy was feebleminded in the first

place. This was the opinion of Pinel, the great pioneer of psychiatry who had examined the boy before Itard began his work with him. But this theory is offered in relation to virtually all feral children, because their behavior is always severely retarded by the time they are discovered. There is no way of knowing, however, what their intellectual potential might have been had their earlier experiences been different. A better explanation is that Itard overestimated the boy's prognosis because of a somewhat amateurish philosophy, that environment could accomplish everything; that the boy could be made normal with the proper training. He failed to see that the experimental corrective must be applied at the right time. Training may be too late — or too early.

ONE OF THE MOST RECENT DISCOVERIES of wild children — and one of the most interesting — is the "Gazelle Boy of the Spanish Saharah," described in great detail in a book published just last year.⁹

The gazelle boy (whose age when found was estimated to be about ten years) is unique in that he is the only one of the wild children not taken into captivity. Jean-Claude Armen, an artist and writer who was traveling alone in the Spanish Saharah Desert in 1960 with a native guide, discovered what he described as "a naked human form; it is slender and with long black hair, galloping in gigantic bounds among a long cavalcade of white gazelles."

⁹Armen, Jean-Claude. Gazelle Boy, New York Universe Books, 1974.

FASCINATED BY WHAT he first thought might be a vision, Armen followed the herd of gazelles until he found the child again. He then adopted the strategy of sitting Arab fashion and playing a Berber flute. Gradually the gazelles and the child came closer and after several days would nuzzle him and lick his hands and face. He actually returned the gesture and attempted to make the same soft, guttural noises uttered by both the boy and the gazelles. Finally they seemed to accept him and he spent several weeks with them, returning two years later for another brief sojourn with the herd, while two Spanish soldiers observed from a distance.

[DURING HIS TIME WITH THE gazelle boy Armen learned that the boy was able to communicate with the gazelles by body movements and low sounds in the back of the throat. Indeed, he describes some amazingly complex signals such as a dozen different movements of the hoofs by which the gazelles could communicate different distances. For example, stamping one front hoof indicated food one kilometer away; stamping both front hoofs alternately indicated the food was two kilometers away; additional movements indicated differences up to ten to twelve kilometers, the greatest distance the gazelles were able to communicate.]

ALL THESE SIGNALS the gazelle boy understood, and Armen described his behavior as remarkably gazelle-like, except that he was able to climb trees! !

Summarize

ARMEN DID NOT PUBLICIZE his discovery at first. Having returned to civilization and researched the topic of wild children, he decided that this boy was better off to remain in his primitive state. Taken into captivity, Armen feared, his fate would be like that of Victor of Aveyron -- regarded by authorities as an idiot and never able to adapt to civilization. The boy's existence did become generally known, but all attempts by others to capture him have failed. During one chase by men in a jeep his running speed was clocked at 52 kilometers per hour (32.28 miles per hour), with gigantic, continuous leaps of about four meters in length.

SO FAR AS ANYONE KNOWS, the gazelle boy of the Spanish Saharah still roams with those who adopted him many years ago. He would be about 25 years old now, and perhaps his fate is actually better than that of the other wild children who have invariably failed to adapt to efforts of scientists and others to humanize them.

THE IDEA OF HUMAN CHILDREN being reared by animals has always fascinated psychologists and fiction writers. Also interesting, however, are the several instances where animals have been reared in the manner of human children. The first such serious attempt, to my knowledge, was that of Dr. and Mrs. Kellogg who, in the 1930's, reared their son, Donald, with a chimpanzee named Gua.

ACCORDING TO THEIR REPORT, Donald and Gua were treated exactly alike. They slept in little baby beds side by side in

the nursery, and when Donald was fed, Gua was fed. When Donald was taken out of the crib to be played with and cuddled, Gua was given equal time.

ONE OF THEIR FINDINGS that always surprises students was that until they reached the age of about 22 months, Gua's development was somewhat more advanced than Donald's. She had learned to walk earlier, minded better, and had a larger repertoire of behavior, including the ability to utter several intelligible words. Of course this seeming superiority of Gua's did not concern the Kelloggs because they had expected it, since chimpanzees always develop more rapidly than humans, usually walking by age four weeks.

GUA'S BEHAVIOR DEVELOPMENT leveled off at about age five, and eventually the Kelloggs gave her to a zoo where she lived out the rest of her days with others of her own kind. Donald, on the other hand, continued to develop, showing no ill effects from having spent his early days with a chimpanzee, and eventually became a physician. ✓

THERE ARE OTHER EXAMPLES of chimpanzees being reared as humans. The Hayeses, who had no other children, raised a chimp from birth to almost three years, trying all the while to teach her to communicate. At the end of that time she could use only the words "Mama," "Papa," and "bup" meaningfully.

✓ IN THE LATE 60'S THE GARDNERS began to raise a chimp named Washoe on whom they have issued several reports. Realizing

that the chimpanzee's limitations in developing language are partly due to the fact that the chimp's vocal apparatus is less well developed than man's, the Gardners taught Washoe sign language like that used by the deaf. Surprisingly, after 22 months of training, she had learned more than 30 appropriate gestures, including not only simple words, but some abstract symbols. ✓

FROM THIS SMALL SELECTION OF STUDIES -- admittedly limited in scope -- one can draw few definite conclusions about the relative importance of heredity and learning! I have purposely chosen studies that I felt would have a direct bearing on those issues raised by a popular fiction series, but like comic books, Sherlock Holmes, cowboy movies, and a host of others, Tarzan the Ape Man introduced many of us, while still in childhood, to some of the great issues of the science of human development. I would contend, therefore, that such fiction is truly educational. While it may not always provide the correct answers, such literature raises many of the right questions and helps to launch us on the quest for knowledge.

✓
FOR EXAMPLE, THE QUESTION frequently asked, namely, "Which plays the greater part in human behavior, heredity or environment?" can never be answered, because it is a poor question. A better question is, "How do heredity and environment interact to determine behavior?" Both play crucial roles, but timing is as important as either heredity or learning.

HEREDITY PLACES LIMITS on development. None of Tarzan's ape companions could ever reach the level that Tarzan reached in either the book or movie version. By the same token, there was never a question as to whether Gua might develop an intellect comparable to that of Donald, even when the Kelloggs noted her superiority to their son at age 18 months. On the other hand, human development is subject to wide variations in levels of achievement. We cannot determine whether Victor of Aveyron was a mentally deficient child from birth, because his early experiences were so damaging that no amount of enrichment in later life could ever counteract the effects of those experiences. The question of timing is paramount. Had the child been found earlier, Itard's efforts might have been more successful. It is on this matter of timing that Tarzan's creator misleads us. Deprived of contact with human culture until his teens, Tarzan could never have developed to the point suggested in the story, his noble birth as an English peer notwithstanding.✓

THUS WE WRESTLE TODAY with questions that we cannot answer accurately, because the questions are too awkwardly formed. Are the lower I.Q. scores of black Americans due to genetic inferiority or to impoverished environments? Do women in our culture achieve less because they are truly a weaker sex? Or does the culture tend to prescribe more passive roles to them? Can "bussing to achieve racial integration," which begins rather late in the child's developmental sequence, really

make the next generation of blacks a more responsible, independent segment of society? Can society be improved by education, better housing, and urban renewal, or should we turn to birth control, including selective breeding, as a means of upgrading the species? And so on we could go.

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THE PHILOSOPHER JOHN LOCKE once said that each newborn child is a tabula rasa, a blank tablet on which his own experiences write to make him a unique individual. Though we know now that that tablet is far from blank, that the human child comes into the world with many genetically-determined qualities, such case histories as those cited may help to show the extent to which the child's development is subject to learning experiences and to the proper timing of those experiences. x

THOUGH IT IS UNDENIABLE that culture is the prime shaper of behavior, the story of Tarzan remains a delightful tale that stimulates the imagination. In the dream world of Edgar Rice Burroughs his rich, dramatic fantasy raises Tarzan above the clutches of time.