

turned and went on in silence before me.

The knot of Beast Men, still wondering, stood back among the trees. I passed them as serenely as possible. One started to follow me, but retreated again when Montgomery cracked his whip. The rest stood silent--watching. They may once have been animals; but I never before saw an animal trying to think.

XIV. DOCTOR MOREAU EXPLAINS.

"AND now, Prendick, I will explain," said Doctor Moreau, so soon as we had eaten and drunk. "I must confess that you are the most dictatorial guest I ever entertained. I warn you that this is the last I shall do to oblige you. The next thing you threaten to commit suicide about, I shan't do,--even at some personal inconvenience."

He sat in my deck chair, a cigar half consumed in his white, dexterous-looking fingers. The light of the swinging lamp fell on his white hair; he stared through the little window out at the starlight. I sat as far away from him as possible, the table between us and the revolvers to hand. Montgomery was not present.

I did not care to be with the two of them in such a little room.

"You admit that the vivisected human being, as you called it, is, after all, only the puma?" said Moreau. He had made me visit that horror in the inner room, to assure myself of its inhumanity.

"It is the puma," I said, "still alive, but so cut and mutilated as I pray I may never see living flesh again. Of all vile--"

"Never mind that," said Moreau; "at least, spare me those youthful horrors. Montgomery used to be just the same. You admit that it is the puma. Now be quiet, while I reel off my physiological lecture to you."

And forthwith, beginning in the tone of a man supremely bored, but presently warming a little, he explained his work to me. He was very simple and convincing. Now and then there was a touch of sarcasm in his voice. Presently I found myself hot with shame at our mutual positions.

The creatures I had seen were not men, had never been men. They were animals, humanised animals,--triumphs of vivisection.

"You forget all that a skilled vivisector can do with living things," said Moreau. "For my own part, I'm puzzled why the things I have done here have not been done before. Small efforts,

of course, have been made,--amputation, tongue-cutting, excisions. Of course you know a squint may be induced or cured by surgery? Then in the case of excisions you have all kinds of secondary changes, pigmentary disturbances, modifications of the passions, alterations in the secretion of fatty tissue. I have no doubt you have heard of these things?"

"Of course," said I. "But these foul creatures of yours--"

"All in good time," said he, waving his hand at me; "I am only beginning. Those are trivial cases of alteration. Surgery can do better things than that. There is building up as well as breaking down and changing. You have heard, perhaps, of a common surgical operation resorted to in cases where the nose has been destroyed: a flap of skin is cut from the forehead, turned down on the nose, and heals in the new position. This is a kind of grafting in a new position of part of an animal upon itself. Grafting of freshly obtained material from another animal is also possible,--the case of teeth, for example. The grafting of skin and bone is done to facilitate healing: the surgeon places in the middle of the wound pieces of skin snipped from another animal, or fragments of bone from a victim freshly killed. Hunter's cock-spur--possibly you have heard of that--flourished on the bull's neck; and the rhinoceros rats of the Algerian zouaves are also to be thought of,--monsters manufactured by transferring a slip from the tail of an ordinary rat to its snout, and allowing it to heal in that position."

"Monsters manufactured!" said I. "Then you mean to tell me--"

"Yes. These creatures you have seen are animals carved and wrought into new shapes. To that, to the study of the plasticity of living forms, my life has been devoted. I have studied for years, gaining in knowledge as I go. I see you look horrified, and yet I am telling you nothing new. It all lay in the surface of practical anatomy years ago, but no one had the temerity to touch it. It is not simply the outward form of an animal which I can change. The physiology, the chemical rhythm of the creature, may also be made to undergo an enduring modification,--of which vaccination and other methods of inoculation with living or dead matter are examples that will, no doubt, be familiar to you. A similar operation is the transfusion of blood,--with which subject, indeed, I began. These are all familiar cases. Less so, and probably far more extensive, were the operations of those mediaeval practitioners who made dwarfs and beggar-cripples, show-monsters,--some vestiges of whose art still remain in the preliminary manipulation of the young mountebank or contortionist. Victor Hugo gives an account of them in 'L'Homme qui Rit.'--But perhaps my meaning grows plain now. You begin to see that it is a possible thing to transplant tissue from one part of an animal to another, or from one animal to another; to alter its chemical reactions and methods of growth; to modify the articulations of its limbs; and, indeed, to change it in its most intimate structure.

"And yet this extraordinary branch of knowledge has never been sought as an end, and systematically, by modern investigators until I took it up! Some such things have been hit upon in the last resort of surgery; most of the kindred evidence that will recur to your mind has been demonstrated as it were by accident,--by tyrants, by criminals, by the breeders of horses and dogs, by all kinds of untrained clumsy-handed men working for their own immediate ends.

I was the first man to take up this question armed with antiseptic surgery, and with a really scientific knowledge of the laws of growth.

Yet one would imagine it must have been practised in secret before.

Such creatures as the Siamese Twins--And in the vaults of the Inquisition. No doubt their chief aim was artistic torture, but some at least of the inquisitors must have had a touch of scientific curiosity."

"But," said I, "these things--these animals talk!"

He said that was so, and proceeded to point out that the possibility of vivisection does not stop at a mere physical metamorphosis.

A pig may be educated. The mental structure is even less determinate than the bodily. In our growing science of hypnotism we find the promise of a possibility of superseding old inherent instincts by new suggestions, grafting upon or replacing the inherited fixed ideas.

Very much indeed of what we call moral education, he said, is such an artificial modification and perversion of instinct;

pugnacity is trained into courageous self-sacrifice, and suppressed sexuality into religious emotion. And the great difference between man and monkey is in the larynx, he continued,--in the incapacity to frame delicately different sound-symbols by which thought could be sustained. In this I failed to agree with him, but with a certain incivility he declined to notice my objection. He repeated that the thing was so, and continued his account of his work.

I asked him why he had taken the human form as a model. There seemed to me then, and there still seems to me now, a strange wickedness for that choice.

He confessed that he had chosen that form by chance. "I might just as well have worked to form sheep into llamas and llamas into sheep. I suppose there is something in the human form that appeals to the artistic turn of mind more powerfully than any animal shape can. But I've not confined myself to man-making. Once or twice--" He was silent, for a minute perhaps. "These years! How they have slipped by! And here I have wasted a day saving your life, and am now wasting an hour explaining myself!"

"But," said I, "I still do not understand. Where is your justification for inflicting all this pain? The only thing that could excuse vivisection to me would be some application--"

"Precisely," said he. "But, you see, I am differently constituted. We are on different platforms. You are a materialist."

"I am not a materialist," I began hotly.

"In my view--in my view. For it is just this question of pain that parts us. So long as visible or audible pain turns you sick; so long as your own pains drive you; so long as pain underlies your propositions about sin,--so long, I tell you, you are an animal, thinking a little less obscurely what an animal feels. This pain--"

I gave an impatient shrug at such sophistry.

"Oh, but it is such a little thing! A mind truly opened to what science has to teach must see that it is a little thing. It may be that save in this little planet, this speck of cosmic dust, invisible long before the nearest star could be attained--it may be, I say, that nowhere else does this thing called pain occur. But the laws we feel our way towards--Why, even on this earth, even among living things, what pain is there?"

As he spoke he drew a little penknife from his pocket, opened the smaller blade, and moved his chair so that I could see his thigh. Then, choosing the place deliberately, he drove the blade into his leg and withdrew it.

"No doubt," he said, "you have seen that before. It does not hurt a pin-prick. But what does it show? The capacity for pain is not needed in the muscle, and it is not placed there,--is but little needed in the skin, and only here and there over the thigh is a spot capable of feeling pain. Pain is simply our intrinsic medical adviser to warn us and stimulate us. Not all living flesh is painful; nor is all nerve, not even all sensory nerve. There's no taint of pain, real pain, in the sensations of the optic nerve. If you wound the optic nerve, you merely see flashes of light,--just as disease of the auditory nerve merely means a humming in our ears. Plants do not feel pain, nor the lower animals; it's possible that such animals as the starfish and crayfish do not feel pain at all. Then with men, the more intelligent they become, the more intelligently they will see after their own welfare, and the less they will need the goad to keep them out of danger. I never yet heard of a useless thing that was not ground out of existence by evolution sooner or later. Did you? And pain gets needless.

"Then I am a religious man, Prendick, as every sane man must be. It may be, I fancy, that I have seen more of the ways of this world's Maker than you,--for I have sought his laws, in my way, all my life, while you, I understand, have been collecting butterflies. And I tell you, pleasure and pain have nothing to do with heaven or hell. Pleasure and pain--bah! What is your theologian's ecstasy but

Mahomet's houri in the dark? This store which men and women set on pleasure and pain, Prendick, is the mark of the beast upon them,--the mark of the beast from which they came! Pain, pain and pleasure, they are for us only so long as we wriggle in the dust.

"You see, I went on with this research just the way it led me. That is the only way I ever heard of true research going. I asked a question, devised some method of obtaining an answer, and got a fresh question. Was this possible or that possible? You cannot imagine what this means to an investigator, what an intellectual passion grows upon him! You cannot imagine the strange, colourless delight of these intellectual desires! The thing before you is no longer an animal, a fellow-creature, but a problem! Sympathetic pain,--all I know of it I remember as a thing I used to suffer from years ago. I wanted--it was the one thing I wanted--to find out the extreme limit of plasticity in a living shape."

"But," said I, "the thing is an abomination--"

"To this day I have never troubled about the ethics of the matter," he continued. "The study of Nature makes a man at last as remorseless as Nature. I have gone on, not heeding anything but the question I was pursuing; and the material has--dripped into the huts yonder. It is nearly eleven years since we came here, I and Montgomery and six Kanakas. I remember the green stillness of the island

and the empty ocean about us, as though it was yesterday.

The place seemed waiting for me.

"The stores were landed and the house was built. The Kanakas founded some huts near the ravine. I went to work here upon what I had brought with me. There were some disagreeable things happened at first.

I began with a sheep, and killed it after a day and a half by a slip of the scalpel. I took another sheep, and made a thing of pain and fear and left it bound up to heal. It looked quite human to me when I had finished it; but when I went to it I was discontented with it.

It remembered me, and was terrified beyond imagination; and it had no more than the wits of a sheep. The more I looked at it the clumsier it seemed, until at last I put the monster out of its misery.

These animals without courage, these fear-haunted, pain-driven things, without a spark of pugnacious energy to face torment,--they are no good for man-making.

"Then I took a gorilla I had; and upon that, working with infinite care and mastering difficulty after difficulty, I made my first man.

All the week, night and day, I moulded him. With him it was chiefly the brain that needed moulding; much had to be added, much changed.

I thought him a fair specimen of the negroid type when I had finished him, and he lay bandaged, bound, and motionless before me.

It was only when his life was assured that I left him and came into this room again, and found Montgomery much as you are.

He had heard some of the cries as the thing grew human,--cries

like those that disturbed you so. I didn't take him completely into my confidence at first. And the Kanakas too, had realised something of it. They were scared out of their wits by the sight of me. I got Montgomery over to me--in a way; but I and he had the hardest job to prevent the Kanakas deserting. Finally they did; and so we lost the yacht. I spent many days educating the brute,--altogether I had him for three or four months. I taught him the rudiments of English; gave him ideas of counting; even made the thing read the alphabet. But at that he was slow, though I've met with idiots slower. He began with a clean sheet, mentally; had no memories left in his mind of what he had been. When his scars were quite healed, and he was no longer anything but painful and stiff, and able to converse a little, I took him yonder and introduced him to the Kanakas as an interesting stowaway.

"They were horribly afraid of him at first, somehow,--which offended me rather, for I was conceited about him; but his ways seemed so mild, and he was so abject, that after a time they received him and took his education in hand. He was quick to learn, very imitative and adaptive, and built himself a hovel rather better, it seemed to me, than their own shanties. There was one among the boys a bit of a missionary, and he taught the thing to read, or at least to pick out letters, and gave him some rudimentary ideas of morality; but it seems the beast's habits were not all that is desirable.

"I rested from work for some days after this, and was in a mind to write an account of the whole affair to wake up English physiology. Then I came upon the creature squatting up in a tree and gibbering at two of the Kanakas who had been teasing him. I threatened him, told him the inhumanity of such a proceeding, aroused his sense of shame, and came home resolved to do better before I took my work back to England. I have been doing better. But somehow the things drift back again: the stubborn beast-flesh grows day by day back again. But I mean to do better things still. I mean to conquer that. This puma--

"But that's the story. All the Kanaka boys are dead now; one fell overboard of the launch, and one died of a wounded heel that he poisoned in some way with plant-juice. Three went away in the yacht, and I suppose and hope were drowned. The other one--was killed. Well, I have replaced them. Montgomery went on much as you are disposed to do at first, and then--

"What became of the other one?" said I, sharply,--"the other Kanaka who was killed?"

"The fact is, after I had made a number of human creatures I made a Thing--" He hesitated.

"Yes?" said I.

"It was killed."

"I don't understand," said I; "do you mean to say--"

"It killed the Kanaka--yes. It killed several other things that it caught. We chased it for a couple of days. It only got loose by accident--I never meant it to get away. It wasn't finished. It was purely an experiment. It was a limbless thing, with a horrible face, that writhed along the ground in a serpentine fashion. It was immensely strong, and in infuriating pain. It lurked in the woods for some days, until we hunted it; and then it wriggled into the northern part of the island, and we divided the party to close in upon it. Montgomery insisted upon coming with me. The man had a rifle; and when his body was found, one of the barrels was curved into the shape of an S and very nearly bitten through. Montgomery shot the thing. After that I stuck to the ideal of humanity--except for little things."

He became silent. I sat in silence watching his face.

"So for twenty years altogether--counting nine years in England--I have been going on; and there is still something in everything I do that defeats me, makes me dissatisfied, challenges me to further effort. Sometimes I rise above my level, sometimes I fall below it; but always I fall short of the things I dream. The human shape I can get now,

almost with ease, so that it is lithe and graceful, or thick and strong; but often there is trouble with the hands and the claws,--painful things, that I dare not shape too freely. But it is in the subtle grafting and reshaping one must needs do to the brain that my trouble lies. The intelligence is often oddly low, with unaccountable blank ends, unexpected gaps. And least satisfactory of all is something that I cannot touch, somewhere--I cannot determine where--in the seat of the emotions. Cravings, instincts, desires that harm humanity, a strange hidden reservoir to burst forth suddenly and inundate the whole being of the creature with anger, hate, or fear. These creatures of mine seemed strange and uncanny to you so soon as you began to observe them; but to me, just after I make them, they seem to be indisputably human beings. It's afterwards, as I observe them, that the persuasion fades. First one animal trait, then another, creeps to the surface and stares out at me. But I will conquer yet! Each time I dip a living creature into the bath of burning pain, I say, 'This time I will burn out all the animal; this time I will make a rational creature of my own!' After all, what is ten years? Men have been a hundred thousand in the making." He thought darkly. "But I am drawing near the fastness. This puma of mine--" After a silence, "And they revert. As soon as my hand is taken from them the beast begins to creep back, begins to assert itself again." Another long silence.

"Then you take the things you make into those dens?" said I.

"They go. I turn them out when I begin to feel the beast in them, and presently they wander there. They all dread this house and me. There is a kind of travesty of humanity over there. Montgomery knows about it, for he interferes in their affairs. He has trained one or two of them to our service. He's ashamed of it, but I believe he half likes some of those beasts. It's his business, not mine. They only sicken me with a sense of failure. I take no interest in them. I fancy they follow in the lines the Kanaka missionary marked out, and have a kind of mockery of a rational life, poor beasts! There's something they call the Law. Sing hymns about 'all thine.' They build themselves their dens, gather fruit, and pull herbs--marry even. But I can see through it all, see into their very souls, and see there nothing but the souls of beasts, beasts that perish, anger and the lusts to live and gratify themselves.--Yet they're odd; complex, like everything else alive. There is a kind of upward striving in them, part vanity, part waste sexual emotion, part waste curiosity. It only mocks me. I have some hope of this puma. I have worked hard at her head and brain--

"And now," said he, standing up after a long gap of silence, during which we had each pursued our own thoughts, "what do you think? Are you in fear of me still?"

I looked at him, and saw but a white-faced, white-haired man, with calm eyes. Save for his serenity, the touch almost of beauty that

resulted from his set tranquillity and his magnificent build, he might have passed muster among a hundred other comfortable old gentlemen. Then I shivered. By way of answer to his second question, I handed him a revolver with either hand.

"Keep them," he said, and snatched at a yawn. He stood up, stared at me for a moment, and smiled. "You have had two eventful days," said he. "I should advise some sleep. I'm glad it's all clear. Good-night." He thought me over for a moment, then went out by the inner door.

I immediately turned the key in the outer one. I sat down again; sat for a time in a kind of stagnant mood, so weary, emotionally, mentally, and physically, that I could not think beyond the point at which he had left me. The black window stared at me like an eye. At last with an effort I put out the light and got into the hammock. Very soon I was asleep.

XV. CONCERNING THE BEAST FOLK.

I WOKE early. Moreau's explanation stood before my mind, clear and definite, from the moment of my awakening. I got out