

Thus the ape, which philosophers, as well as the vulgar, have regarded as a being difficult to define, and whose nature was at least equivocal, and intermediate between that of man and the animals, is, in fact, nothing but a real brute, endowed with the external mark of humanity, but deprived of thought, and of every faculty which properly constitutes the human species; a brute inferior to many others in his relative powers, and still more essentially different from the human race by his nature, his temperament, and the time necessary to his education, gestation, growth, and duration of life; that is, by all the real habitudes which constitute what is called *Nature* in a particular being.

## The ORANG-OUTANGS, or the PONGO\* and JOCKO†.

WE shall give the history of these two animals under one article; because it is not improbable they belong to the same species. Of all

\* In the East Indies this animal is called *orang-outang*; in Lowando, a province of Congo, *pongo*; and, in some parts of the East Indies, according to Kjoep, chap. lxxxvi. quoted by Linnaeus, *Katwulack*.

Homo sylvestris. Orang-outang; *Bontius*, p. 84.

Satyri sylvestris. Orang-outang dikli; *Icones Arboresc.* at et *Animalium*, Lugd. Bat. apud Vandersee, tab. antequam.

Tragelodytes. Homo nocturnus; *Lin. Syst.* p. 33.

Oran-outang; *Beakman's Travels*.

Orangers-outangs; *Voyages de Gauthier Schoutten aux Indes Orientales*.

Dill; *Charlevoix, Exercit.* p. 16.

Smitten; *Dufman, Voyage de Guinée*, p. 528.

Barris, according to several voyagers, pongo; *Battel, Par-chasi*, &c.

† *Jacks, enjacks*, the names of this animal in Congo; *laris* in Guiney, according to Pyraud, p. 369. *Nierenberg*, p. 179.

Chimpanzee; *Scotin's print*, 1738.

Man of the wood; *Edwards*, p. 213.

Barris; *Barbet's Guiney*, p. 101.

Onojas marrou; *ibid.* p. 115.

Satyris Indicus; *Vulpi Objevo. Med. lib. iii. c. 56*.

Homo sylvestris, ourang-outang; *Tybo's Anatomy of a Pigmy*, p. 108.

Simia satyris, caudata, ferruginea, lacertorum pilis reversis, naubus testis; *Lin. Syst. Nat.* p. 34.

L'homme

all the apes, they have the greatest resemblance to man; and, consequently, deserve particular attention. We have seen the small orang-outang, or jocko, alive, and have preserved its skin. But of the pongo, or great orang-outang, we can only give the relations of travellers. If these were faithful, if they were not often obscure, false, and exaggerated, we could not hesitate in pronouncing it to be a different species from the jocko, a species more perfect, and approaching nearer to that of man. Bontius, who was chief physician of Batavia, and has left us some excellent remarks on the natural history of that part of the Indies, says expressly\*, that he saw, with admiration, some individuals of this

L'homme de bois, simia unguibus omnibus planis et rotundatis, caefarie faciem cingente; *Briffon, Quadr.* p. 134.

Mr. Pennant, in his *Synopsis of Quadrupeds*, p. 96. makes but one species of the pongo and jocko, of which he gives the following description:

Great ape with a flat face, and a deformed resemblance of the human ears exactly like those of a man; hair on the head longer than on the body; body and limbs covered with reddish and shaggy hair; longest hair on the back, thinnest on the fore parts; face and paws swarthy; buttocks covered with hair.

\* Quod meretur admirationem, vidi ego aliquot utriusque sexus erecti incedentes imprimis (cujus effigiem hic exhibeo) satyrum femellam tanta verecundia ab ignotis sibi hominibus occultentem, tum quoque faciem manibus (sicut ita dicere) tegentem, uberisque lacrymantem, gemitus clementem, et ceteros humanos actus exprimentem, ut nihil humani ei dessee diceres præter loquelam. . . . Nomen ei indant *orang-outang*, quod hominem silvæ significat; *Jac. Bont. Hist. Nat. Ind. cap. xxxii. p. 84 et 85.*

species

species walking on two feet, and, among others, a female (of which he gives a figure) who seemed to have a sense of modesty, who covered herself with her hand when men appeared of whom she had no acquaintance, who wept, groaned, and seemed to want nothing of humanity but the faculty of speech. Linnæus\*, upon the authority of Kjoep, and some other voyagers, tells us, that the orang-outang is not deprived of this faculty; that he thinks, speaks, and expresses himself by a kind of hissing words. This author calls him *homo nocturnus*, and, at the same time, gives such a description of him, that it is impossible to ascertain whether he is a brute or a man. It may, however, be remarked, that, according to Linnæus, this being, whatever he is, exceeds not the half of the human stature; and, as Bontius takes no notice of the magnitude of his orang-outang, we may presume that they are the same. But this orang-outang of Linnæus and Bontius would not be the true kind, which is larger than the tallest man. Neither is he the jocko, which I have

\* *Homo nocturnus. Homo sylvestris Orang-outang Bontii.* Corpus album, incessu erectum, nostro dimidio minus, pili albi contortuplicati, oculi orbiculati, iridi papillæ aureæ. Palpebre antice incumbentes cum membrana nictitante. Vitis lateralis, nocturnus. Aetas viginti quinque annorum. Die cæcutis, latet; noctu videt, exit, furatur. *Loquitur sibilo, cogitat, credit sui causa satum villarum, si aliquando iterum fore imperantem, si fides peregrinatoribus.* . . . Habitat in Java, Amboina, Ternate speluncis; *Linn. Syst. Nat. edit. 2. p. 24.*

seen

seen alive; for, though he was of the same size with that described by Linnæus, he differed in every other character. I saw him frequently, and I can affirm, that he neither spoke, nor expressed himself by hissing, and that he did nothing which a well trained dog could not perform. Besides, he differs in almost every article from Linnæus's description of the orang-outang, and corresponds better with the *satyrus* of the same author. For these reasons, I suspect the truth of the description of this *homo nocturnus*. I even doubt of his existence. It has probably been a white Negro, a Chacrelas\*, whom the voyagers quoted by Linnæus have superficially examined and falsely described. For the Chacrelas, like the *homo nocturnus* of this author, have white, woolly, frizzled hair, red eyes, a feeble voice, &c. But they are men, and neither bis, nor are they pigmies of thirty inches high: They think and act like other men, and are also of the same size.

Throwing aside, therefore, this ill described being, and supposing a little exaggeration in the relation of Bontius concerning the modesty of his female orang-outang, there only remains a brute creature, an ape, of which we shall find more pointed information in writers of better credit. Edward Tyson†, a celebrated English anatomist, who has given an excellent description

\* See vol. iii. art. *Varieties of the Human Species*.

† The Anatomy of a Pigmy.

both

both of the external and internal parts of the orang-outang, tell us, that there are two species, and that the one he described is not so large as the other which is called *barris*\* or *baris* by travellers, and *drill* by the British. This *barris* or *drill* is the large orang-outang of the East Indies, or the pongo of Guiney. Gassendi having advanced, upon the authority of a voyager called *St. Amand*, that, in the island of Java, there was a creature which constituted the shade between man and the ape, the fact was strenuously denied. To prove it, Peirese produced a letter from M. Noël (*Natalis*), a physician who resided in Africa, from which it appeared †, that large apes were found in Guiney under the denomination of *barris*, who walk on two legs, have much more gravity and intelligence than the other species, and are extremely desirous of women. Darcos, and afterwards Nieremberg‡ and Dapper§, give nearly the same account of the *barris*. Battel calls it *pongo*,

\* The *baris* or *barris*, which they describe to be much taller than our animal, probably may be what we call a *drill*; Tyson, *Anat. of a Pigmy*, p. 1.

† Sunt in Guinea simie, barba procera canaque, et pexa propemodum venerabiles; incedunt lente, se videntur præ ceteris sperare; maximi sunt et *barris* dicuntur; pollent maxime judicio, semel duntaxat quiddam docendi. Veste induti illico bipedes incedunt. Scine habent fistula, cythara, alisque id genus. . . Femina denique in iis patitur menstrua, et marces mulierum sunt appetentissimi; Gassendi, *lib. v.*

‡ Nieremberg, *Hist. Nat. Peregr.* lib. ix. cap. 44.

§ Description de l'Afrique, par Dapper, p. 249.

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and

and describes it in the following manner:  
 'The greatest of these two monsters is called  
 'pongo, in their language; and the lesser is  
 'called *engeco*. This *pongo* is exactly propor-  
 'tioned like a man; but he is more like a  
 'giant in stature; for he is very tall, and  
 'hath a man's face, hollow eyed, with long hair  
 'upon his brows. His face and ears are with-  
 'out hair, and his hands also. His body is full of  
 'hair, but not very thick, and it is of a dunnish  
 'colour. He differeth not from a man, but in  
 'his legs, for they have no calf. He goeth al-  
 'ways upon his legs, and carrieth his hands  
 'clasped on the nap of his neck, when he goeth  
 'upon the ground. They sleep in the trees,  
 'and build shelters for the rain. They feed  
 'upon fruit that they find in the woods, and  
 'upon nuts, for they eat no kind of flesh. They  
 'cannot speak, and have no understanding more  
 'than a beast. The people of the country, when  
 'they travel in the woods, make fires where  
 'they sleep in the night; and in the morning,  
 'when they are gone, the pongos will come  
 'and sit about the fire, till it goeth out; for  
 'they have no understanding to lay the wood  
 'together. They go many together, and kill  
 'many Negroes that travel in the woods.  
 'Many times they fall upon the elephants, which  
 'come to feed where they be, and so beat them  
 'with their clubbed fists, and pieces of wood,  
 'that they will run roaring away from them.  
 'Those

\* Those pongos are never taken alive, because  
 \* they are so strong, that ten men cannot hold  
 \* one of them; but yet they take many of their  
 \* young ones with poisoned arrows. The young  
 \* pongo hangeth on his mother's belly, with his  
 \* hands fast clasped about her; so that, when  
 \* the country people kill any of the females,  
 \* they take the young one, which hangeth fast  
 \* upon his mother \*.' It is from this explicit  
 passage that I have derived the names *pongo*  
 and *jocko*. Battel farther remarks, that, when  
 one of these animal dies, the others cover his  
 body with branches and leaves of trees. Pur-  
 chas adds in a note, that, in the conversations  
 he had with Battel, he learned that a pongo car-  
 ried off a young Negro from him, who lived a  
 whole year in the society of these animals; that,  
 on his return, the Negro said, that they had never  
 injured him; that they were generally as tall  
 as a man, but much thicker; and that they were  
 nearly double the volume of an ordinary man.  
 Jobson assures us, that, in places frequented  
 by these animals, he saw a kind of habitations  
 composed of interlaced branches of trees, which  
 would at least protect them from the scorching  
 rays of the sun †. 'The apes of Guiney,' says  
 Bosman ‡, 'which are called *smitten* by the

\* Purchas's Pilgrims, part ii. p. 982.

† Hist. Gen. des Voyages, tom. iii. p. 295.

‡ Voyage de Guinée, p. 258.

'Flemish, are of a yellow colour, and grow to a great size. I saw with my eyes one which was five feet high. These apes have an ugly appearance, as well as those of another species perfectly similar in every respect, except that four of them would hardly be as large as one of the former kind. . . . They are capable of being taught almost every thing we choose.' Gauthier Schoutten remarks\*, 'that the apes called *orang-outangs* by the Indians are nearly of the same figure and size with men, only their back and reins are covered with hair, though there is no hair on the fore part of their bodies; that the females have two large breasts; that their visage is coarse, their nose flat, and even sunk, and their ears like those of men; that they are robust and active; that they defend themselves against armed men; that they are passionately fond of women, who cannot pass through the woods, without being suddenly attacked and ravished by these apes.' Dampier, Froger, and other travellers, assure us, that the orang-outangs carry off girls of eight or ten years of age to the tops of trees, and that it is extremely difficult to rescue them. To these testimonies we may add that of M. de la Brosse, who assures us, in his voyage to Angola in the year 1738, that the orang-outangs, which he calls *quimpemba*, 'endeavour to surprise the Ne-

\* Voyage de Gaut. Schoutten.

'gresses, whom they detain for the purpose of enjoying them, and entertain them plentifully. I knew a Negress at Loango who remained three years with these animals. They grow from six to seven feet high. They erect huts, and use bludgeons in their own defence. They have flat faces, broad flat noses, flat ears, skins clearer than those of Molattoes, long thinly scattered hairs on several parts of their bodies, bellies extremely tense, and flat heels raised behind about half an inch. They walk upon two or four feet, at pleasure. We purchased two young ones, a male of fourteen months of age, and a female of twelve,' &c.

We have thus enumerated the most certain facts we could collect concerning the great *orang-outang* or *pongo*; and, as magnitude is the chief character by which it differs from the jocko, I persist in thinking that they are of the same species: For two circumstances are at least possible: 1. The jocko may be a permanent variety, a race much smaller than that of the pongo. In fact, they both inhabit the same climate; they live in the same manner; and, of course, ought to resemble each other in every article, since they both receive equally the influences of the same soil and sky. In the human species, have we not an example of a similar variety? The Laplander and Fin, though they live under the same climate, differ nearly as much in stature,



and much more in other qualities, than the jocko differs from the great orang-outang. 2. The jocko, or small orang-outang, which we have seen alive, as well as those of Tulpus, Tyson, and others which have been brought to Europe, were all, perhaps, young animals, who had acquired only a part of their growth. The one I saw was about two feet and a half high; and the *Sieur Nonfoux*, to whom it belonged, assured me that it exceeded not two years of age. On the supposition, therefore, that its growth were proportional to that of man, it might, if it had lived, have arrived at the height of more than five feet. The orang-outang of Tyson was still younger; for it was only about two feet high, and its teeth were not perfectly formed. Those of Tulpus and Edwards were nearly of the same stature with the one I saw. Hence it is probable, that these young animals, if possessed of liberty in their own climate, would have acquired with age the same height and dimensions which travellers have ascribed to the great orang-outang. Of course, till better information be received, we must regard these two animals as constituting but one species.

The orang-outang which I saw, walked always on two feet, even when carrying things of considerable weight. His air was melancholy, his gait grave, his movements measured, his dispositions gentle, and very different from those

of

of other apes. He had neither the impatience of the Barbary ape, the maliciousness of the baboon, nor the extravagance of the monkeys. It may be alleged, that he had the benefit of instruction; but the other apes, which I shall compare with him, were educated in the same manner. Signs and words were alone sufficient to make our orang-outang act: But the baboon required a cudgel, and the other apes a whip; for none of them would obey without blows. I have seen this animal present his hand to conduct the people who came to visit him, and walk as gravely along with them as if he had formed a part of the company. I have seen him sit down at table, unfold his towel, wipe his lips, use a spoon or a fork to carry the victuals to his mouth, pour his liquor into a glass, and make it touch that of the person who drank along with him. When invited to take tea, he brought a cup and saucer, placed them on the table, put in sugar, poured out the tea, and allowed it to cool before he drank it. All these actions he performed, without any other instigation than the signs or verbal orders of his master, and often of his own accord. He did no injury to any person: He even approached company with circumspection, and presented himself as if he wanted to be caressed. He was very fond of dainties, which every body gave him: And, as his breast was diseased, and he was afflicted with a teasing cough, this quantity of sweetmeats undoubtedly

contributed to shorten his life. He lived one summer in Paris, and died in London the following winter. He eat almost every thing; but preferred ripe and dried fruits to all other kinds of food. He drank a little wine; but spontaneously left it for milk, tea, or other mild liquors. Tulpus\*, who gives a good description and a figure of one of these animals, that had been presented to Frederick Henry, Prince of Orange, makes nearly the same observations with regard to it, as I have already related. But, if we wish to distinguish the instincts peculiar

\* Erat hic satyrus quadrupes, sed ab humana specie quam præ se fert vocatur Indus *orang-outang*, homo silvestris, ut Africanis *quogjanoerus*: Exprimens longitudine puerum trimum, ut crassitie sexennem; corpore erat nec obeso nec gracili, sed quadrate, habilitissimo tamen ac pericillissimo. Artibus vero tam strictis et musculis adeo vastis, ut quidvis et auderet et posset. Anterior undique glaber, at pone hirsutus ac nigris crinibus oblitus. Facies mentiebatur hominem; sed nires suæ et aduncæ rugosæ et edentulæ anum. Aures vero illi discrepant ab humana forma, uti neque pectus ornatum stringere mamma prætumida (erat enim sexus fœminæ). Venter habebat umbilicum profundiores, et artus, cum superiores tum inferiores, tam exaclam cum homine similitudinem ut vir ovum ovo videtur similis. Nec cubito deficit debita commensura, nec manibus digitorum ordo; necdem pollicis figura humana vel erubus furæ vel pedi calceis sulcrum. Quæ cœcilia et decens membrorum forma in causa fuit, quod multoties incederet erectus, neque attolleret mimas gravate, quam transferret facile qualemque gravissimi oneris pondus. Bibiturus prehendebat canthari ensam manu altera; alteram vero vasis fundo supponens, abstergebat deinde modorem labiis relictum.—Eandem dexteritatem observabat cubitum iturus; inclinans caput in palmar et corpus stragulis convenienter operiens, &c.; Tulpus, *Observ. Medica*, lib. iii. c. 56.

to this animal from the improvement it receives by education, we must compare the facts of which we have been eye-witnesses, with the relations of travellers who have seen it in a state of nature, in the full possession of liberty, and in captivity. M. de la Brosse, who purchased from a Negro two orang-outangs, whose age exceeded not twelve months, does not say that they had been instructed by the Negro. It appears, on the contrary, that they spontaneously performed most of the actions above recited. 'These animals,' he remarks, 'have the instinct of sitting at table like men. They eat every kind of food, without distinction. They use a knife, a fork, or a spoon, to cut or lay hold of what is put in their plate. They drink wine and other liquors. We carried them aboard. At table, when they wanted any thing, they made themselves be understood to the cabin-boy: And, when the boy refused to give them what they demanded, they sometimes became enraged, seized him by the arm, bit, and threw him down. . . . The male was seized with sickness on the road. He made himself be attended as a human being. He was even bled twice in the right arm: And, whenever he found himself afterwards in the same condition, he held out his arm to be bled, as if he knew that he had formerly received benefit from that operation.'

Henry

Henry Gros informs us, vol. i. p. 233.  
 ' That some places towards the hills are covered  
 ' with immense impenetrable forests, which afford  
 ' a shelter for wild beasts of all sorts. But in  
 ' that which forms the inland boundary of the  
 ' Carnatic Rajah's dominions, there is one singular  
 ' species of creatures, of which I had heard  
 ' much in India, and the truth of which the  
 ' following fact, that happened some time before  
 ' my arrival there, may serve for an attestation.

' Vancajee, a merchant of that country, and  
 ' an inhabitant on the sea-coast, sent up to Bombay  
 ' to the then governour of it, Mr. Horne, a  
 ' couple of those creatures before mentioned, as  
 ' a present, by a coasting vessel, of which one  
 ' Captain Boag was the master, and the make of  
 ' which, according to his description, and that of  
 ' others, was as follows :

' They were scarcely two feet high, walked  
 ' erect, and had perfectly a human form. They  
 ' were of a fallow white, without any hair, except  
 ' in those parts that it is customary for man-  
 ' kind to have it. By their melancholy, they  
 ' seemed to have a rational sense of their captivity,  
 ' and had many of the human actions.  
 ' They made their bed very orderly in the cage  
 ' in which they were sent up, and, on being viewed,  
 ' would endeavour to conceal, with their  
 ' hands, those parts that modesty forbids mani-  
 ' festing. The joints of their knees were not

†

re-en-

re-entering, like those of monkeys, but saliant,  
 like those of men ; a circumstance they have  
 (if I mistake not), in common with the orang-  
 outangs in the eastern parts of India, in Sumatra,  
 Java, and the spice-islands, of which these seem to be the diminutives, though with  
 nearer approaches of resemblance to the human  
 species. But, though the navigation from the  
 Carnatic coast to Bombay is of a very short  
 run, of not above six or seven degrees, whether  
 the sea air did not agree with them, or that  
 they could not brook their confinement, or that  
 Captain Boag had not properly consulted their  
 provisions, the female sickening first, died ; and  
 the male giving all the demonstrations of grief,  
 seemed to take it to heart so, that he refused  
 to eat, and, in two days after, followed her.  
 The Captain, on his return to Bombay, reporting  
 this to the governour, was by him asked,  
 What he had done with the bodies ? He said  
 he had flung them over-board. Being further  
 asked, why he did not keep them in spirits ?  
 he replied bluntly, that he did not think of it.  
 Upon this, the governour wrote afresh to Vancajee,  
 and desired him to procure another  
 couple, at any rate, as he should grudge no  
 expence to be master of such a curiosity. Vancajee's  
 answer was, he should very willingly oblige him,  
 but that he was afraid it would not be in his power :  
 That these creatures came from a forest about seventy leagues up the  
 country,



'country, where the inhabitants would sometimes catch them on the skirts of it; but that they were so exquisitely cunning and sly, that this scarcely happened once in a century.'

Francis Pyrrard \* relates, 'That, in the province of Sierra Leona, there is a species of animals called *baris*, who are strong and well limbed, and so industrious, that, when properly trained and fed, they work like servants; that they generally walk on the two hind feet; that they pound any substances in a mortar; that they go to bring water from the river in small pitchers, which they carry full on their heads. But, when they arrive at the door, if the pitchers are not soon taken off, they allow them to fall; and, when they perceive the pitcher overturned and broken, they weep and lament.' Father Jarric, quoted by Nieremberg †, says the same thing, nearly in the same terms. With regard to the education of these animals, the testimony of Schoutten ‡ accords with that of Pyrrard. 'They are taken,' he remarks, 'with snares, taught to walk on their hind feet, and to use their fore feet as hands in performing different operations, as rinsing glasses, carrying drink round the company, turning a spit,' &c. 'I saw, at Java,' says Guat ||,

\* Voyage de Francois Pyrrard, tom. ii. p. 331.

† Ess. Nieremberg. Hist. Nat. Peregrin. lib. ix. cap. 45.

‡ Voyages de Guat. Schoutten aux Indes Orientales.

|| Voyages de Fr. le Guat, tom. ii. p. 66.

' a very

' a very extraordinary ape. It was a female. She was very tall, and often walked erect on her hind feet. On these occasions, she concealed with her hands the parts which distinguish the sex. Except the eye-brows, there was no hair on her face, which pretty much resembled the grotesque female faces I saw among the Hottentots at the Cape. She made her bed very neatly every day, lay upon her side, and covered herself with the bed-clothes. . . . When her head ached, she bound it up with a handkerchief; and it was amusing to see her thus hooded in bed. I could relate many other little articles which appeared to be extremely singular. But I admired them not so much as the multitude; because, as I knew the design of bringing her to Europe to be exhibited as a show, I was inclined to think that she had been taught many of these monkey-tricks, which the people considered as being natural to the animal. She died in our ship, about the latitude of the Cape of Good Hope. The figure of this ape had a very great resemblance to that of man,' &c. Gemelli Carreri tells us, that he saw one of these apes, which cried like an infant, walked upon its hind feet, and carried a matt under his arm to lie down and sleep upon. These apes, he adds, appear, in some respects, to have more sagacity than men: For, when the fruits on the mountains are exhausted, they come down to the sea-coasts, where they feed upon

upon crabs, oysters, and other shell-fishes. There is a species of oyster called *tacovo*, which weighs several pounds, and commonly lies open on the shore. The ape, when he wants to eat one of them, being afraid lest it should close on his paw, puts a stone into the shell, which prevents it from shutting, and then eats the oyster at his ease.

'The apes along the banks of the river Gam-bia,' says Froger, 'are larger and more mischievous than in any other part of Africa: The Negroes dread them, and cannot travel alone in the country, without running the hazard of being attacked by these animals, who often present them with a stick, and force them to fight. I have heard the Portuguese say, that they have frequently seen them hoist up young girls, about seven or eight years old, into trees, and that they could not be wrested from them without a great deal of difficulty. The most part of the Negroes imagine them to be a foreign nation come to inhabit their country, and that they do not speak for fear of being compelled to work.'

'We might dispense,' another traveller \* remarks, 'with seeing a number of apes at Macacar; because a rencounter with them is often fatal. It is necessary to be always well armed to defend ourselves against their attacks. . . .

\* Descript. Historique du Royaume de Macacar, p. 51.

'They

'They have no tail, and walk always erect on their two hind feet, like men.'

These are nearly all the facts, concerning this animal, which have been related by voyagers who are least credulous, and deserve most credit. I have quoted the passages entire, because every article is important in the history of a brute which has so great a resemblance to man. And, that we may be enabled to ascertain the nature of this animal with the greater precision, we shall now mark the differences and conformities which make him approach or recede from the human species. He differs from man externally by the flatness of his nose, by the shortness of his front, and by his chin, which is not elevated at the base. His ears are proportionally too large, his eyes too near each other, and the distance between his nose and mouth is too great. These are the only differences between the face of an orang-outang and that of a man. With regard to the body and members, the thighs are proportionally too short, the arms too long, the fingers too small, the palm of the hands too long and narrow, and the feet rather resemble hands than the human foot. The male organs of generation differ not from those of man, except that the prepuce has no *frænum*. The female organs are extremely similar to those of a woman.

The orang-outang differs internally from the human species in the number of ribs: Man has only twelve; but the orang-outang has thirteen.

The

The vertebrae of the neck are also shorter, the bones of the pelvis narrow, the buttocks flatter, and the orbits of the eyes sunk deeper. He has no spinal process on the first vertebra of the neck. The kidneys are rounder than those of man, and the ureters have a different figure, as well as the bladder and gall-bladder, which are narrower and longer than in the human species. All the other parts of the body, head, and members, both external and internal, so perfectly resemble those of man, that we cannot make the comparison without being astonished that such a similarity in structure and organization should not produce the same effects. The tongue, and all the organs of speech, for example, are the same as in man; and yet the orang-outang enjoys not the faculty of speaking; the brain has the same figure and proportions; and yet he possesses not the power of thinking. Can there be a more evident proof than is exhibited in the orang-outang, that matter alone, though perfectly organized, can produce neither language nor thought, unless it be animated by a superior principle? Man and the orang-outang are the only animals who have buttocks and calfs of the legs, and who, of course, are formed for walking erect; the only animals who have a broad chest, flat shoulders, and vertebrae of the same structure; and the only animals whose brain, heart, lungs, liver, spleen, stomach, and intestines are perfectly similar.

milar, and who have an appendix vermiformis, or blind-gut. In fine, the orang-outang has a greater resemblance to man than even to the baboons or monkeys, not only in all the parts we have mentioned, but in the largeness of the face, the figure of the cranium, of the jaws, of the teeth, and of the other bones of the head and face; in the thickness of the fingers and thumb, the figure of the nails, and the number of vertebrae; and, lastly, in the conformity of the articulations, the magnitude and figure of the rotula, sternum, &c. Hence, as there is a greater similarity between this animal and man than between those creatures which resemble him most, as the Barbary ape, the baboon, and monkey, who have all been designed by the general name of *apes*, the Indians are to be excused for associating him with the human species, under the denomination of *orang-outang*, or *wild man*. As some of the facts we have related may appear suspicious to those who never saw this animal, we shall support them by the authority of two celebrated anatomists. Tyson \* and Couper dissected him

\* The orang-outang has a greater resemblance to man than to the apes or monkeys; because, 1. The hairs on his shoulders are directed downward, and those of the arms upward. 2. His face is broader and flatter than that of the apes. 3. The figure of his ear has a greater resemblance to that of man, except the cartilaginous part, which is thin, as in the apes. 4. His fingers are proportionally thicker than those of the apes.

with the most scrupulous exactness, and have given us the results of the comparisons they made

the apes. 5. He is in every article formed for walking erect, which is by no means the case with the apes and monkeys. 6. He has thicker buttocks than all the other apes. 7. He has callosities on his legs. 8. His breast and shoulders are broader than those of the apes. 9. His heel is longer. 10. He has a cellular membrane, placed, as in man, under the skin. 11. His peritonæum is entire, and not pierced or lengthened, as it is in the apes. 12. His intestines are longer than those of the apes. 13. The intestinal canal is of different diameters, as in man, and not equal or nearly equal, as in the apes. 14. His cæcum has a vermicular appendix, as in man; but this appendix is wanting in all the other apes. Besides, the neck of the colon is not so long as that of the apes. 16. The insertions of the biliary and pancreatic ducts have but one common orifice in man and the orang-outang; but, in the monkeys, these insertions are two inches asunder. 16. The colon is longer than that of the apes. 17. The liver is not divided into lobes, as in the apes, but entire, as in man. 18. The biliary vessels are the same as in man. 19. The spleen, and 20. the pancreas, are the same. 21. The number of lobes in the lungs is the same. 22. The pericardium is attached to the diaphragm, as in man. 23. The cone of the heart is blunter than in the apes. 24. He has no pouches at the bottom of the cheeks, as the other apes and monkeys have. 25. His brain is larger than that of the apes, and exactly formed like the human brain. 26. The cranium is rounder and double the size of that of the monkeys. 27. All the features of the cranium are similar to those of man; and the bones called *oss. triquetra Wormiana* are found in the lambdoid suture, which is not the case in the other apes or monkeys. 28. He has the *os cribriforme* and the *crista galli*, which are wanting in the monkeys. 29. He has the *sella turcica* exactly as in man; but in the apes and monkeys, this part is more elevated and prominent. 30. The processus pterigoideus is the same as in man; but it is wanting in the apes and monkeys. 31. The temporal bones, and those called *oss. trigonalia*, are the same as in man; but, in the apes and monkeys,

made between the different parts of his body with that of man. I have translated this article from the

these bones are of a different form. 32. The os zygomatice, is final; but it is large in the apes and monkeys. 33. The teeth, and particularly the dog-teeth and grinders, are more similar to the human teeth than to those of the apes. 34. The transverse processes of the vertebrae of the neck, and the sixth and seventh vertebrae, have a greater resemblance to those of man than to those of the apes and monkeys. 35. The vertebrae of the neck are not perforated, as in the apes, for the transmission of nerves, but plain and entire, as in man. 36. The vertebrae of the back and their processes are the same as in man; and, in the lower vertebrae, there are only two inferior processes; but, in the apes, there are four. 37. As in man, there are only five lumbar vertebrae; but, in the monkeys, there are six or seven. 38. The spinal processes of the lumbar vertebrae are straight, as in man. 39. The os sacrum is composed of five vertebrae, as in man; but, in the apes and monkeys, it consists only of three. 40. The coccyx is composed of four bones, as in man, and these bones are not perforated; but, in the apes and monkeys, the coccyx is composed of a greater number of bones, which are all perforated. 41. In the orang-outang, there are only seven true ribs (*costæ vere*), and the extremities of the false ribs (*costæ asther*) are all cartilaginous, and articulated with the bodies of the vertebrae; but, in the apes and monkeys, there are eight true ribs, and the extremities of the false ribs are osseous, and their articulations are placed in the interstices between the vertebrae. 42. The sternum of the orang-outang is as broad as that of man, and not narrow, as in the monkeys. 43. The bones of the four fingers are thicker than those of the apes. 44. The thigh bone is perfectly similar to that of man. 45. The rotula is round, and not long, single, and not double, as it is in the apes. 46. The heel, the *tarso*, and *metatarso*, are the same as those of man. 47. The middle toe is not so long as in the apes. 48. The *obliquus inferior capitis*, *præfrontalis*, and *biceps femoris* muscles, are similar to those of man; but they are different in the apes and monkeys, &c.

the English, that the reader may be enabled to form a judgment of the almost entire resemblance

The orang-outang differs from the human species more than from the apes and monkeys in the following articles. 1. The thumb is proportionally smaller than that of man; but it is larger than that of the other apes. 2. The palm of the hand is longer and narrower than in man. 3. He differs from man and approaches the apes by the length of his toes. 4. He differs from man by having the large toe of the foot removed nearly to the distance of an inch from the next one, and he should be rather considered as a four-handed animal than a quadruped. 5. His thighs are shorter than those of man; and, 6. his arms are longer. 7. The testicles are not pendulous. 8. The epiploos is larger than in man. 9. The gall-bladder is longer and narrower. 10. The kidneys are rounder than in man; and the ureters are also different. 11. The bladder is longer. 12. He has no *frænum* to the prepuce. 13. The bone in the orbit of the eye is sunk deeper. 14. He wants the two cavities below the *fila tertia*. 15. The malloid and styloid processes are extremely small. 16. The bones of the nose are flat. 17. The *vertebrae* of the neck are short, as in the apes, flat before and not round, and their spinal processes are not forked, as in man. 18. He has no spinal process in the first *vertebra* of the neck. 19. He has thirteen ribs on each side, and man has only twelve. 20. The *glenæ ilia* are perfectly similar to those of the apes, being longer, narrower, and less concave than in man. 21. The following muscles are found in man, and are wanting in the orang-outang. *Occipitalis, frontalis, dilatatores alarum nasi, flexores lobii superioris, interfaciales colli, glutei minimi, extensor digitorum pedis brevis, et transversalis pedis*. 22. The muscles which appear not in the orang-outang, and are sometimes found in man, are those called *pyramidalis, caro musculosa quadrata*, the long tendon and fleshy body of the *palmaris*, the *attellus*, and *retroflexus auricularum*. 23. The orang-outang, has the *levator* muscles of the clavicles like those of the apes, and different from those of man. 24. The following are the muscles by which the orang-outang resembles the apes, and differs

blance between this animal and the human species. I shall only remark, for the better understanding of this note, that the English are not confined, like the French, to a single name to denote *apes*. Like the Greeks, they have two denominations, the one for the apes without tails, which they call *apes*\*, and the other for the apes with tails, which they call *monkeys*. The apes of Tyson could be no other than those which we denominate *pithecus* or *pigmy*, and the *cynocephalus* or *Barbary ape*. I should likewise remark, that this author gives some resemblances and differences which are not sufficiently accurate.

1. Tyson makes it peculiar to man and the orang-outang, to have the hair on the shoulders directed downward, and that of the arms upward. The hair of most animals, it is true, is directed backward or downward; but there are some exceptions. The sloth and the least anteater have the hair of their anterior parts directed backward, and that of the crupper and reins directed forward. Hence this character is of no

differs from man: *Longus colli, pectoralis, latissimus dorsi, gluteus maximus et medius, flexor magnus et parvus, iliacus internus, et gastrocnemius internus*. 25. He differs from man in the figure of the *deltoides*, *præcoracii radii teres*, et *extensor pollicis brevis*. Anatomy of the orang-outang by Tyson.

\* *Simia* dividuntur in cauda carentes, quæ *simia simpliciter* dicuntur; et caudatas, quæ *cercopithecii* appellantur; quæ prioris generis sunt Anglice *apes* dicuntur; quæ posterioris *monkeys*; *Raii Synops. Zood. p. 149.*



great moment in the comparison of the orang-outang with man.

2. In the passage quoted from Tyson, I took no notice of the four first differences; because they are either too slight, or ill founded. The first is the difference of stature, which is an uncertain and gratuitous character, especially as the author acknowledges that his animal was very young. The second, third, and fourth are derived from the form of the nose, the quantity of hair, and other minute relations. I retrenched several other differences; for example, the twenty-first, drawn from the number of teeth. It is certain that both the human species and this animal have an equal number of teeth. If the latter had only twenty-eight, as our author remarks, it was owing to his youth; and, it is well known, that man, when young, has not a greater number.

3. The seventh difference is also very equivocal: The testicles of children are situated very high; and this animal, being young, ought not to have had them pendulous.

4. The forty-eighth mark of resemblance, and the twenty-first, twenty-second, twenty-third, twenty-fourth, and twenty-fifth marks of difference, are derived from the figure or presence of certain muscles, which, as they vary in most individuals of the human species, ought not to be regarded as essential characters.

5. All the resemblances and differences drawn from

from parts too minute, as the processes of the vertebrae, or derived from the position and magnitude of certain parts, should only be considered as accessory characters; so that the whole detail of Tyson's table may be reduced to the resemblances and differences we have pointed out.

6. I shall mention some characters of a more general nature, some of which have been omitted by Tyson, and others imperfectly related.

1. Of all the apes, baboons, and monkeys, the orang-outang alone wants those pouches within the cheeks, into which they put their food, before they swallow it; for the inside of his mouth is the same as in man. 2. The gibbon, the Barbary ape, all the baboons, and all the monkeys, except the douc, have flat buttocks, with callosities on them. The orang-outang alone has plump buttocks without callosities. The douc likewise has no callosities; but his buttocks are flat and covered with hair; so that, in this respect, the douc forms the shade between the orang-outang and the monkeys. 3. The orang-outang alone has calfs of the legs and fleshy buttocks. This single character shows that he is best formed for walking erect; only his toes are very long, and his heel rests with more difficulty on the ground than that of man. He runs with more ease than he walks; and, to enable him to walk easily and long, he would require artificial heels higher than those of our shoes.

shoes. 4. Though the orang-outang has thirteen ribs, and man but twelve, this difference does not make him approach nearer to the baboons or monkeys than it removes him from man; because the number of ribs varies in most of those species, some of them having twelve, others eleven, others ten, &c. Hence the only differences between the body of this animal and that of man are reduced to two, namely, the figure of the bones of the pelvis, and the conformation of the feet. These are the only parts worthy of consideration, by which the orang-outang has a greater resemblance to the other apes than he has to man.

From this examination, which I have made with all the exactness I was capable of, a judgment may be formed concerning the orang-outang. If there were a scale by which we could descend from human nature to that of the brutes, and if the essence of this nature consisted entirely in the form of the body, and depended on its organization, the orang-outang would approach nearer to man than any other animal. Placed in the second rank of beings, he would make the other animals feel his superiority, and oblige them to obey him. If the principle of imitation, by which he seems to mimic human actions, were a result of thought, this ape would be still farther removed from the brutes, and have a greater affinity to man. But, as we formerly remarked, the interval which separates them

Plate CCLVIII.



JOCKO.

them is immense; and the resemblance in figure and organization, and the movements of imitation which seem to result from these similarities, neither make him approach the nature of man, nor elevate him above that of the brutes.

*Distinctive Characters of this Species.*

The orang-outang has no pouches within his cheeks, no tail, and no callosities on his buttocks; which last are plump and fleshy. All his teeth are similar to those of man. His face is flat, naked, and tawny. His ears, hands, feet, breast, and belly, are likewise naked. The hair of his head descends on both temples in the form of tresses. He has hair on his back and loins, but in small quantities. He is five or six feet high, and walks always erect on his two feet. We have not been able to ascertain whether the females, like women, are subject to periodical courses; but analogy renders this matter almost unquestionable.