

THE EXPRESSION OF THE
EMOTIONS IN MAN AND ANIMALS

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WITH PHOTOGRAPHIC AND OTHER ILLUSTRATIONS

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patient horse, for when the soil is loose, he throws up clouds of dust. I believe that bulls act in this manner when irritated by flies, for the sake of driving them away. The wilder breeds of sheep and the chamois when startled stamp on the ground, and whistle through their noses; and this serves as a danger-signal to their comrades. The musk-ox of the Arctic regions, when encountered, likewise stamps on the ground.⁹ How this stamping action arose I cannot conjecture; for from inquiries which I have made it does not appear that any of these animals fight with their fore-legs.

Some species of deer, when savage, display far more expression than do cattle, sheep, or goats, for, as has already been stated, they draw back their ears, grind their teeth, erect their hair, squeal, stamp on the ground, and brandish their horns. One day in the Zoological Gardens, the Formosan deer (*Cervus pseudaxis*) approached me in a curious attitude, with his muzzle raised high up, so that the horns were pressed back on his neck; the head being held rather obliquely. From the expression of his eye I felt sure that he was savage; he approached slowly, and as soon as he came close to the iron bars, he did not lower his head to butt at me, but suddenly bent it inwards, and struck his horns with great force against the railings. Mr. Bartlett informs me that some other species of deer place themselves in the same attitude when enraged.

Monkeys—The various species and genera of monkeys express their feelings in many different ways; and this fact is interesting, as in some degree bearing on the question, whether the so-called races of man should be ranked as distinct species or varieties; for, as we shall

⁹ 'Land and Water,' 1869, p. 152.

sec in the following chapters, the different races of man express their emotions and sensations with remarkable uniformity throughout the world. Some of the expressive actions of monkeys are interesting in another way, namely from being closely analogous to those of man. As I have had no opportunity of observing any one species of the group under all circumstances, my miscellaneous remarks will be best arranged under different states of the mind.

Pleasure, joy, affection.—It is not possible to distinguish in monkeys, at least without more experience than I have had, the expression of pleasure or joy from that of affection. Young chimpanzees make a kind of barking noise, when pleased by the return of any one to whom they are attached. When this noise, which the keepers call a laugh, is uttered, the lips are protruded; but so they are under various other emotions. Nevertheless I could perceive that when they were pleased the form of the lips differed a little from that assumed when they were angered. If a young chimpanzee be tickled—and the armpits are particularly sensitive to tickling, as in the case of our children,—a more decided chuckling or laughing sound is uttered; though the laughter is sometimes noiseless. The corners of the mouth are then drawn backwards; and this sometimes causes the lower eyelids to be slightly wrinkled. But this wrinkling, which is so characteristic of our own laughter, is more plainly seen in some other monkeys. The teeth in the upper jaw in the chimpanzee are not exposed when they utter their laughing noise, in which respect they differ from us. But their eyes sparkle and grow brighter, as Mr. W. L. Martin,¹⁰ who has particularly attended to their expression, states.

¹⁰ 'Natural History of Mammalia,' 1841, vol. i. pp. 383, 410.

Young Orangs, when tickled, likewise grin and make a chuckling sound; and Mr. Martin says that their eyes grow brighter. As soon as their laughter ceases, an expression may be detected passing over their faces, which, as Mr. Wallace remarked to me, may be called a smile. I have also noticed something of the same kind with the chimpanzee. Dr. Duchenne—and I cannot quote a better authority—informs me that he kept a very tame monkey in his house for a year; and when he gave it during meal-times some choice delicacy, he observed that the corners of its mouth were slightly raised; thus an expression of satisfaction, partaking of the nature of an incipient smile, and resembling that often seen on the face of man, could be plainly perceived in this animal.

The *Cebus azarae*,¹¹ when rejoiced at again seeing a beloved person, utters a peculiar tittering (*kichernden*) sound. It also expresses agreeable sensations, by drawing back the corners of its mouth, without producing any sound. Rengger calls this movement laughter, but it would be more appropriately called a smile. The form of the mouth is different when either pain or terror is expressed, and high shrieks are uttered. Another species of *Cebus* in the Zoological Gardens (*C. hypoleucus*) when pleased, makes a reiterated shrill note, and likewise draws back the corners of its mouth, apparently through the contraction of the same muscles as with us. So does the Barbary ape (*Inuus ecaudatus*) to an extraordinary degree; and I observed in this monkey that the skin of the lower eyelids then became much wrinkled. At the same time it rapidly moved its lower jaw or lips in a spasmodic manner, the teeth being exposed; but the noise produced was hardly more distinct than that which

¹¹ Rengger ('Säugetheire von Paraguay', 1830, s. 46) kept these monkeys in confinement for seven years in their native country of Paraguay.

we sometimes call silent laughter. Two of the keepers affirmed that this slight sound was the animal's laughter, and when I expressed some doubt on this head (being at the time quite inexperienced), they made it attack or rather threaten a hated Entellus monkey, living in the same compartment. Instantly the whole expression of the face of the Inuus changed; the mouth was opened much more widely, the canine teeth were more fully exposed, and a hoarse barking noise was uttered.

The Anubis baboon (*Cynocephalus anubis*) was first insulted and put into a furious rage, as was easily done, by his keeper, who then made friends with him and shook hands. As the reconciliation was effected the baboon rapidly moved up and down his jaws and lips, and looked pleased. When we laugh heartily, a similar movement, or quiver, may be observed more or less distinctly in our jaws; but with man the muscles of the chest are more particularly acted on, whilst with this baboon, and with some other monkeys, it is the muscles of the jaws and lips which are spasmodically affected.

I have already had occasion to remark on the curious manner in which two or three species of Macacus and the *Cynopithecus niger* draw back their ears and utter a slight jabbering noise, when they are pleased by being caressed. With the *Cynopithecus* (fig. 17), the corners of the mouth are at the same time drawn backwards and upwards, so that the teeth are exposed. Hence this expression would never be recognized by a stranger as one of pleasure. The crest of long hairs on the forehead is depressed, and apparently the whole skin of the head drawn backwards. The eyebrows are thus raised a little, and the eyes assume a staring appearance. The lower eyelids also become slightly wrinkled; but this wrinkling is not conspicuous, owing to the permanent transverse furrows on the face.

Painful emotions and sensations.—With monkeys the expression of slight pain, or of any painful emotion, such as grief, vexation, jealousy, &c., is not easily distinguished from that of moderate anger; and these states of mind readily and quickly pass into each other. Grief, however, with some species is certainly exhibited by weeping. A woman, who sold a monkey to the Zoological Society, believed to have come from Borneo (*Macacus maurus* or *M. inornatus* of Gray), said that it often cried; and Mr. Bartlett, as well as the keeper Mr. Sutton, have repeatedly seen it, when grieved, or even when much pitied, weeping so copiously that the tears rolled down its cheeks. There is, however, something strange about this case, for two specimens subsequently kept in the Gardens, and believed to be the same species, have never been seen to weep, though they were carefully observed by the keeper and myself when much distressed and loudly screaming. Rengger states¹² that the eyes of the *Cebus azaræ* fill with tears, but not sufficiently to overflow, when it is prevented getting some much desired object, or is much frightened. Humboldt also asserts that the eyes of the *Callithrix sciureus* “instantly fill with tears when it is seized with fear,” but when this pretty little monkey in the Zoological Gardens was teased, so as to cry out loudly, this did not occur. I do not, however, wish to throw the least doubt on the accuracy of Humboldt’s statement.

The appearance of dejection in young orangs and chimpanzees, when out of health, is as plain and almost as pathetic as in the case of our children. This state of mind and body is shown by their listless movements, fallen countenances, dull eyes, and changed complexion.

¹² Rengger, *ibid.* s. 46. Humboldt, ‘Personal Narrative,’ Eng. transl. vol. iv. p. 527.