

ON THE EXPRESSION OF THE EMOTIONS.

Mr. Darwin's new work, entitled "The Expression of the Emotions in Man and Animals," republished by D. Appleton & Co., will probably attract many more readers than his "Origin of Species," or "The Descent of Man," because it is not only singularly free from the peculiar theories which are counted as heresies by the orthodox, but for the stronger reason that it strikes out a fresh vein in the study of natural history: Mr. Darwin, regarding man as the highest type of the animal creation, finds that other animals possess a power of expression which is as characteristic as that with which the human race displays emotions; and it is a curious idiosyncrasy that he has drawn most of his illustrations concerning human beings from countries which are not civilized—Man in his natural state being, in Darwin's judgment, the most satisfactory subject of illustration. In this Mr. Darwin is probably right, for the artificiality of many of the so-called customs of civilization reveal the pressure of art rather than the law of nature. The assistance of diligent and capable correspondents has enabled Mr. Darwin to collect a vast amount of material regarding the Australian aborigines, who, he says, "are among the most distinct of all races of men;" and other friends have done a similar service for him among the races who dwell in the interior of Malacca, and on the borders of Gipp's Land, and for Chinese immigrants in the Malay archipelago, and in other remote places. Because of the "contamination of civilization," Mr. Darwin refused to have anything to do with colored citizens of the United States, and he ignores Yankees altogether, while he glances in a kindly fashion at Tetons, Grosventres, Nandans and Assinaboines. He has studied the expression of the son of the last representative of Prester John and profited by manuscript remarks on the expressions of his tribe made by a brother of the Chief Sandilli. Observations, which have proved even more profitable, of the emotions of infants have been taken directly from nature by Mr. Darwin himself; while the remarks on insane persons are the contribution of an eminent physician, employed in a large asylum for lunatics.

It will readily be seen that this volume is entertaining, as well as original and instructive. He reduces the results of his observations to three principles, which he illustrates in detail; 1. The principle of serviceable associated habits; 2. That of antithesis; 3. That of actions due to the constitution of the nervous system, independently from the beginning of the will, and, to a certain extent, of habit. Of the first of these principles Mr. Darwin says that "it is not positively known how it comes that habit is so efficient in facilitating complex movements; but physiologists admit that the conducting power of the nervous fibres increases with the frequency of their excitement." "This applies," proceeds Mr. Darwin, "to the nerves of motion and sensation as well as to those connected with the act of thinking. That some physical change is produced in the nerve-cells or nerves which are habitually used, can hardly be doubted, for otherwise it is impossible to understand how the tendency to certain acquired movements is inherited."

To prove that movements are inherited, Mr. Darwin cites some striking illustrations, from hares, setters, pointers, pigeons and men; and among these is the following in relation to

GROTESQUE FAMILY GESTURE.

The inheritance of habitual gestures is so important for us, that I gladly avail myself of Mr. F. Galton's permission to give in his own words the following remarkable

case: "The following account of a habit occurring in individuals of three consecutive generations is of peculiar interest, because it occurs only during sound sleep, and therefore cannot be due to imitation, but must be altogether natural.—The particulars are perfectly trustworthy, for I have inquired fully into them, and speak from abundant independent evidence. A gentleman of considerable position was found by his wife to have the curious trick, when he lay fast asleep on his back in bed, of raising his right arm slowly in front of his face up to his forehead, and then dropping it with a jerk, so that his wrist fell heavily on the bridge of his nose. The trick did not occur every night, but occasionally and was independent of any ascertained cause. Sometimes it was repeated incessantly for an hour or more. The gentleman's nose prominent, and its bridge often became sore from the blows which it received. At one time an awkward sore was produced, that was long in healing, on account of the recurrence, night after night, of the blows which first caused it. His wife had to remove the button from the wrist of his night-gown, as it made severe scratches, and some means were attempted of tying his arm. Many years after his death, his son married a lady who had never heard of the family incident. She, however, observed precisely the same peculiarity in her husband; but his nose, from not being particularly prominent, has never as yet suffered from the blows. The trick does not occur when he is half asleep, as for example, when dozing in his arm chair, but the moment he is fast asleep it is apt to begin. It is, with his father, intermittent; sometimes almost incessant during a part of every night. It is performed, as it was by his father, with his right hand. One of his children, a girl, has inherited the same trick. She performs it, likewise, with the right hand, but in a slightly modified form; for, after raising the arm, she does not allow the wrist to drop upon the bridge of the nose, but the palm of the half-closed hand falls over and down the nose, striking it rather rapidly. It is also very intermittent with this child, not occurring for periods of some months, but sometimes occurring almost incessantly."

Here is another bit concerning

curring almost necessarily.

Here is another bit, concerning
ACTION FROM HABIT.

A vulgar man often scratches his head when perplexed in mind; and I believe he acts thus from habit, as if he experienced a slightly uncomfortable bodily sensation, namely, the itching of his head, to which he is particularly liable and which he thus relieves. Another man rubs his eyes when perplexed, or gives a little cough when embarrassed, acting in either case as if he felt a slightly uncomfortable sensation in his eyes or windpipe.

Referring to innate gestures common to a species, Mr. Darwin asserts that

SHRUGGING THE SHOULDERS.

is the best instance of a gesture which stands in direct opposition to all other movements, and is naturally assumed under an opposite frame of mind. It expresses impotence or apology—something which cannot be done, or cannot be avoided. The gesture is sometimes used consciously and voluntarily, which shows that this action has become accepted almost universally as expressive. It seems far too complex in itself to be accepted as due to anything but imitation.

To this third principle Mr. Darwin has given not less attention than to the two former. He states it as follows: "That certain actions, which we recognize as expressive of certain states of the mind, are the direct results of the constitution of the nervous system, and have from the first independent of the will, and, to a large extent of habit."

The intensity of the

ACTION OF THE NERVOUS SYSTEM.

is shown by the often repeated cases, in which, under the direct influence of extreme terror or grief, the human hair has been rapidly blanched. Mr. Darwin gives as authentic an instance from India, where the hair of a man who was led to execution changed color so rapidly that the alteration was perceptible to the eye. Trembling is another example. It is not only useless but harmful, and cannot have been acquired through the will, and then rendered habitual in association with an emotion.

We have only space left for another extract or two from this readable volume:

A MELANCHOLY RECOLLECTION.

The insane notoriously give way to all their emotions with little or no restraint; and I am informed by Dr. J. Crichton Browne, that nothing is more characteristic of simple meloncholia even in the male sex, than a tendency to weep on the slightest occasions, or from no cause. They also weep disproportionately on the occurrence of any real cause of grief. The length of time during which some patients weep is astonishing, as well as the amount of tears which they shed. One melancholy girl wept for a whole day, and afterward confessed to Dr. Browne that it was because she remembered that she had once shaved off her eyebrows to promote their growth.

DOGS.

Many carnivorous animals, as they crawl toward their prey and prepare to rush or spring on it,

lower their heads and crouch, partly, as it would appear, to hide themselves and partly to get ready for their rush; and this habit, in an exaggerated form, has become hereditary in our pointers and setters. Now I have noticed, scores of times, that when two strange dogs meet on an open road, the one which first sees the other, though at the distance of one or two hundred yards, after the first glance always lowers its head, generally couches a little, or even lies down; that is, he takes the proper attitude for concealing himself and for making a rush or spring, although the road is quite open and the distance great. Again, dogs of all kinds when intently watching and slowly approaching their prey, frequently keep one of their fore-legs doubled up for a long time, ready for the next cautious step; and this is eminently characteristic of the pointer.

CATS.

It is well known that cats dislike wetting their feet, owing, it is probable, to their having aboriginally inhabited the dry country of Egypt; and when they wet their feet they shake them violently.—My daughter poured some water into a glass close to the head of a kitten, and it immediately shook its feet in the usual manner; so that here we have an habitual movement falsely excited by an associated sound instead of by the sense of touch.

ORANGS AT THE LOOKING-GLASS.

Many years ago, in the Zoological Gardens, I placed a looking-glass on the floor before two young orangs, who, as far as it was known, had never before seen one. At first they gazed at their own images with the most steady surprise, and often changed their point of view. They then approached close and protruded their lips toward the image, as if to kiss it, in exactly the same manner as they had previously done toward each other, when first placed, a few days before, in the same room. They next made all sorts of grimaces, and put themselves in various attitudes before the mirror; they pressed and rubbed the surface; they placed their hands at different distances behind it; looked behind it, and finally seemed almost frightened, started a little, became cross, and refused to look any longer.