

REVIEW.

EXPRESSION IN MAN AND ANIMALS.
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The work of which we now offer an outline to the reader is probably destined to be the book of the season. Apart from the great but hitherto little cultivated interest attached to the subject of emotional expression in man and animals in the abstract, the present volume is important as a link in the general development of the special theory of its illustrious author. Its popular nature will ensure its being extensively read, and it is by no means unlikely that it will be the means of attracting to the study of that theory many persons whom the technical and scientific character of preceding volumes has hitherto deterred from following out the speculations which, within the space of a few years, have revolutionised our ideas of natural history, and even of man himself.

The author groups his observations under four general heads—the general principles of expression, the means of expression in animals, the special expressions of animals, and the special expressions of man. He does not concern himself with physiognomy, that is to say, with "the recognition of character through the study of the permanent form of the features," and he has found little that could be of service to him in the older treatises on the subject. It is, however, curious to note that, so far back as 1741, J. Paracelsus, in his paper in the appendix to the "Philosophical Transactions" for that year, gives a list of 41 old authors who have written on Expression. Le Roy's "Conférences," published in 1807, is said to contain some good remarks, but the Dutch anatomist, Pierre Camper, the author considers as having made hardly any marked advance in the subject. He alludes with much greater respect to the works of Sir Charles Bell on the *Anatomical Philosophy of Expression*, and considers him "not only to have laid the foundations of the subject as a branch of science, but to have built up a noble superstructure." This author's great service lies chiefly in his having shown "the intimate relation which exists between the movements of expression and those of respiration." His views were not carried out so far as they might have been, inasmuch as he made no attempt to explain why different muscles are brought into action under different emotions. Lavater's work on *Physiognomy*, as edited by Herman in 1807, though excellent in the editor's descriptions of facial muscular movements, contributes but little to their philosophy. Much of what has been written, indeed, our author looks upon as good specimens of "surprising nonsense," but little more. Dr. Baugmann's work on blushing is frequently referred to. In 1822 appeared Dr. Duchenne's *Mechanics of the Human Physiology*, which Darwin has found of essential service, and several of whose magnificent photographs he has copied for the enrichment of his own volume. Duchenne's experimental observation of details by the aid of electrical action on the muscles has greatly advanced the subject, especially as regards expression in the hand and face, but he, too, omits but little into theory. Gratiolet's lectures on "Expression," delivered at the Sorbonne, are interesting, his rather complex theory being, briefly, that of a close sympathetic parallelism between the inward emotions and the whole sphere of the exterior organs, but he overlooks "inherited habits, and even, to some extent, habit in the individual," and so fails, in our author's opinion, to give the right, or any explanation at all, of many gestures and expressions.

All these authors appear to have been firmly convinced that species, man of course included, came into existence in their present condition. Herbert Spencer, the great expounder of the principle of evolu-

tion, is an exception. Sir C. Bell especially wished to make the distinction between man and the lower animals as broad as possible, and refers to the expressions of the latter in their acts of violence or necessary instincts. Especially he denies to them the capability of expressing rage and fear. Upon this point, says our author, —

"Man himself cannot express love and hostility by external signs so plainly as does a dog, when, with drooping ears, hanging lips, shaggy body, and wagging tail, he meets his beloved master. Nor can these movements in the dog be explained by acts of violence, or necessary instincts, any more than the lowering eyes and smiling cheeks of a man when he meets an old friend."

Gratiolet did not rest on the principle of evolution, and looked at each species as a separate creation, and so with the other writers. Many consider the whole subject of expression as inexplicable. The doctrine of the independent creation of each species, including man, Darwin considers fatal even to the natural desire to "investigate the causes of expression."

"By this doctrine," says he, "anything and everything can be equally well explained; and it has proved as pernicious with respect to expression as to every other branch of natural history. With mankind some expressions, such as the bristling of the hair under the influence of extreme terror, or the uncovering of the teeth under that of furious rage, can hardly be understood, except on the belief that man once existed in a much lower and animal-like condition. The comers of certain expressions, in distinct though allied species, as in the movements of the same facial muscles during laughter by man, and by various monkeys, is rendered somewhat more intelligible, if we believe in their descent from a common progenitor. He who admits, on general grounds, that the structure and habits of all animals have been gradually evolved, will look at the subject of expression in a new and interesting light."

The feeble nature of the movements, and their frequent slightness—our own apprehensions, and the influence of our imagination—are all sources of difficulty in the student's path, but to acquire as good a foundation as possible, the author recommends the observation of infants, and of the insane. In India, he says, exhibit many emotions, as Sir C. Bell remarked, "with extraordinary force," and the insane "are liable to the strongest passions, and give uncontrolled vent to them." Several excellent observers have assisted Darwin in these departments. Strange to say, he has derived but small aid from the great masterpieces of painting and sculpture—a fact which he ascribes to beauty being the chief object in works of art.

In order to ascertain whether the same expressions and gestures prevailed among all the races of mankind, the author cites, later, early in the year 1867, a number of printed queries, having reference to the passions of astonishment, shame, blushing, indignation and defiance, deep thought, grief, cheerfulness, sneering, doggedness and obstinacy, contempt, disgust, extreme fear, laughter, resignation, selfishness, guile and slyness, jealousy, and affection and veneration. To these queries he has received 26 answers, several being from scientific men in our own colony of Victoria, whose names and those of all who have assisted him he mentions with gratitude. The general result at which he has been able to arrive is, that "the same state of mind is expressed throughout the world with remarkable uniformity, and this fact is in itself interesting as evidence of the close similarity in bodily structure and mental disposition of all the races of mankind." He has himself closely studied the expression of the passions in some of the commoner animals, and believes such a study to be of paramount importance, as "affording the right basis for generalisation on the causes, or origin, of the various movements of expression. In observing animals, we are not so likely to be misled by our imagination, and we may feel safe that their expressions are not conventional."

"The Expression of the Emotions in Man and Animals" by Charles Darwin, M.A., F.R.S., &c. London: John Murray, 1872.