



MR. DARWIN'S NEW BOOK.

Mr. Darwin has given us in this volume a book which will, perhaps, be read with equal interest by two distinct and almost antagonistic classes of readers—those who seek only enlightenment, and those who seek only amusement. The child who reads "Gulliver's Travels" as a story can hardly be more different from the scholar who studies it as a wonderful piece of satirical art, than one set of Mr. Darwin's readers, so far as this volume is concerned, will probably be from another. For it is, apart from all graver considerations, one of the most entertaining books we have read for a long time. If it were merely a collection of miscellaneous observations as to the method of expressing the various emotions in all races of man and in the lower animals, it would still be found full of a peculiar and an absorbing interest. It is, however, as everybody will have assumed already, a philosophical study of the subject, with the view of reducing the whole variety of emotional expressions under certain laws of origin, development, and purpose. Mr. Darwin regards the principles which he lays down here, not as essential to confirm "the conclusion that man is derived from some lower animal form," for, he adds, "as far as my judgment serves, such confirmation was scarcely needed." But he maintains that "it affords a new argument in favour of the several races being descended from a single parent-stock, which must have been almost completely human in structure, and to a large extent in mind before the period at which the races diverged from each other. Thus, for example, the laughter which now universally among men signifies some kind of pleasure or enjoyment, must have been practised 'by our progenitors long before they deserved to be called human,' and before, therefore, it came to have its present significance. The laugh evolved itself gradually from the rude grimace as man evolved himself from brutish nature. Thus Mr. Darwin's theory of the emotions and their expression becomes a fitting illustration of his principal doctrine: a chapter in its exposition. But as he fairly and modestly observes, it ought to be interesting to us, apart from all wider range of theory, 'to understand, as far as is possible, the source or origin of the various expressions which may be hourly seen on the faces of the men around us, not to mention even domesticated animals.' Those who like, therefore, to dismiss all theories, or who are rather afraid of the vast philosophical expanse which the general doctrine seems to open up, may read this volume with profit and with pleasure, merely as a study of the various modes of expression which exist in men and the lower animals—a study enriched by the most diversified illustrations and brightened by all manner of curious anecdotes.

Mr. Darwin has been at infinite pains to arrive, in the first instance, at a broad and general basis of facts. It is not easy to get at certainties, even as regards the more obvious modes of expression, and even in the people around us. The "fleeting nature of some expressions (the changes in the features being often extremely slight), our sympathy being easily aroused when we behold any strong emotion, and our attention thus distracted; our imagination deceiving us from knowing in a vague manner what we expect, though certainly few of us know what the exact changes in the countenance are; and, lastly, even our long familiarity with the subject"—all these causes combined render it, as Mr. Darwin shows, by no means easy to come to any certain principles of expression from mere observation. Art, of course, is not always a trustworthy counsellor on this subject; "for in works of art beauty is the chief object; and strongly contracted facial muscles destroy beauty." Lessing's invaluable "Laocoon" has for its great object to vindicate the principle that Art, having for its chief purpose only to delight, is rightly free to subdue all expressions of emotion which would go so far as to distort and disfigure. Most of us, too, have got into conventional ways of assuming certain expressions of face to follow or precede certain emotions. Our authors of fiction have done a good deal to perpetuate error in this way, for only a very few writers really take the trouble to do more, when describing emotion, than to copy a description of somebody else. Nothing is more common in books than to hear of some heroine whose colour went and came, who turned from pale to red, and from red to pale several times in instant succession, although we venture to think that no one in real life ever witnessed such a phenomenon. We have at present in our recollection the heroine of a really eminent author who blushed so that the colour

gradually overspread her whole frame; although the authority of the most experienced physicians has satisfied Mr. Darwin that only in very extraordinary instances indeed does the crimson colour spread below the upper part of the chest. People are not always correct as to the expression on their own faces, even when requested to consider the subject. A lady mentioned in this volume was convinced that she had blushed, while those around her saw that she had really turned pale. Goldsmith, as we have all read, insisted that he moved his upper and not his lower jaw in mastication. Many admirable photographs of faces exhibiting strongly marked emotions will, when shown to different persons, be sometimes interpreted in quite different ways. Therefore it is not easy to come at the mere facts, the simple and universal meanings of expression in the features of the people we see around us every day. But Mr. Darwin had, before preparing this work, to lay down the common laws of expression as they apply to all races and to the various lower animals. He studied closely the expressions on the faces of infants, because they exhibit emotions usually with extraordinary force, and, to quote the words of Sir Charles Bell, in his "Anatomy of Expression," some of these expressions in after life "cease to have the pure and simple source from which they spring in infancy." Mr. Darwin also closely studied the insane, "as they are liable to the strongest passions, and give uncontrolled vent to them." Finally he issued, in the year 1867, a sort of printed list of queries to a great number of persons, official and otherwise, living among half-civilized or savage peoples, with a view of obtaining specific information as to their various modes of expression. The list of inquiries is very full. We cite a few specimens:

Is astonishment expressed by the eyes and mouth being opened wide, and by the eyebrows being raised?

Does shame excite a blush when the colour of the skin allows it to be visible? And especially how low down the body does the blush extend?

When in good spirits do the eyes sparkle with the skin a little wrinkled round and under them, and with the mouth a little drawn back at the corners?

When a man wishes to show that he cannot prevent something being done, or cannot himself do something, does he shrug his shoulders, turn inwards the elbows, extend outwards his hands, and open the palms—with the eyebrows raised?

There were sixteen of these questions, which seem to cover nearly all the possibilities of human expression, and to most of his inquiries Mr. Darwin received full and explicit answers. He learned something of the expressions of uncivilised men in Africa, Australia, and the Indian territories of America, and those of the Chinese, the Malays, the Dyaks of Borneo, and many other peoples. This information he used to strengthen or to correct the conclusions at which his own observations had arrived. Finally, he deduced three principles from his study of the subject, which, as he says, "appear to me to account for most of the expressions and gestures involuntarily used by man and the lower animals under the influence of various emotions and sensations." Mr. Darwin is a bold thinker, but he is very modest in stating his conclusions. "Every one," he says, "will be able to judge for himself how far my three principles throw light on the theory of the subject. It appears to me that so many expressions are thus explained in a fairly satisfactory manner that probably all will hereafter be found to come under the same or closely analogous heads."

The three principles, then, at which Mr. Darwin arrives are as follows:

1. THE PRINCIPLE OF SERVICEABLE ASSOCIATED HABITS. Certain complex actions are of direct or indirect service under certain states of the mind, in order to relieve or gratify certain sensations, desires, &c.; and whenever the same state of mind is induced, however feebly, there is a tendency through the force of habit and association for the same movements to be performed, though they may not then be of the least use. Some actions ordinarily associated through habit with certain states of the mind may be partially repressed through the will, and in such cases the muscles which are least under the separate control of the will are the most liable still to act, causing movements which we recognise as expressive. In certain other cases

the checking of one habitual movement requires other slight movements; and these are likewise expressive.

2. THE PRINCIPLE OF ANTITHESIS.—Certain states of the mind lead to certain habitual actions, which are of service, as under our first principle. Now, when a directly opposite state of mind is induced, there is a strong and involuntary tendency to the performance of movements of a directly opposite nature, though these are of no use; and such movements are in some cases highly expressive.

3. THE PRINCIPLE OF ACTIONS DUE TO THE CONSTITUTION OF THE NERVOUS SYSTEM, INDEPENDENTLY FROM THE FIRST OF THE WILL, AND INDEPENDENTLY TO A CERTAIN EXTENT OF HABIT.—When the sensorium is strongly excited, nerve-force is generated in excess, and is transmitted in certain definite directions, depending on the connection of the nerve-cells, and partly on habit; or the supply of nerve-force may, as it appears, be interrupted.

Effects are thus produced which we recognise as expressive. This third principle may, for the sake of brevity, be called that of the direct action of the nervous system.

With regard to the first principle, Mr. Darwin goes on to show through a variety of illustrations, some drawn from every-day observation, and some from less familiar sources, how certain actions and gestures which once were adopted by reason of positive necessity retain their use by the mere force of habit long after they have ceased to have any practical purpose. In a savage condition of existence, for example, the natural and reasonable thing for a man who saw some enemy and formidable object would have been to throw his body into a condition of readiness for defence, and bend all the watchfulness of his eye upon the expected danger. A dog thus, as we can all observe, throws himself at once into an attitude of possible attack, even when he sees some quite distant creature or object which is obnoxious to him. Thence, Mr. Darwin infers that the sort of expression which once accompanied or even was essential to a condition of defence against positive danger will retain its place as a mere evidence of repugnance or dislike. This will apply, of course, in Mr. Darwin's more general doctrine, to habits and gestures which man has derived from his not human ancestors, and that still retain their hold over him, though he has long emerged from the peculiar condition to which alone they were appropriate. The second principle, that of antithesis, Mr. Darwin explains to be simply the natural reverse of the first. A certain elementary instinct or emotion engenders or makes necessary a certain attitude, gesture, or expression. Suddenly the condition of things is changed. The supposed enemy—to take a very simple illustration—turns out to be a friend. The nerve-force, generated to excess, must find vent in expression or action of some kind. It finds other relief in some attitude or gesture as nearly as possible the reverse of that which sprang out of the supposed necessities of the former moment. It adopts this second mode of expression without the least relation to any supposed direct service to the man or animal, but only because the first expressions being natural or necessary, the reverse of the mental condition would seek for utterance in expressions as unlike and opposed to them as possible. The third principle endeavours to distinguish, classify, and explain those actions which, although recognised as expressive of certain states of the mind are the direct result of the constitution of the nervous system, have been always independent of the will, and even to a great extent of habit. Trembling, blushing, the sympathetic movement and condition of the hair, the secretion of tears ("but here again," says Mr. Darwin, hastening to anticipate an inevitable criticism, "we can trace some few of the steps by which the flow of nerve-force through the requisite channels has become habitual under certain emotions"), the rapid beating of the heart, the blanching of the skin under the influence of fear—these are among the expressions which Mr. Darwin studies in order to illustrate this principle. Nothing can be more complete and well arranged within the limits to which he has confined himself than the order and method of his illustrations. Any reader, of course, will see how these principles bear upon the general doctrine of evolution. First, we have the groundwork of certain elementary expressions, independent of the will, though necessary to the development and protection of animal life. Then we have the expressions and gestures which were rendered necessary by the ever-varying changes and chances of the outer world, and which could hardly be described as merely instinctive even in language least pretending to accuracy. Finally, we have the expressions which originate in the impulse to express a sensation the reverse of that experienced just before. Given the power of habit, the almost irresistible force of association, and we can see how the expression survives long after not merely its practical use has passed away, but even, in many cases, after the whole condition of being to which it properly appertained has been left utterly behind.

These are, briefly explained, the principles of this remarkable and in any case deeply interesting book. We have set them forth as clearly as we could; but of course their emphasis depends almost altogether upon the manner in which they are argued out, and the appropriateness of the illustrations with which they are supported. The book is rich in every page with apposite anecdote and curious scraps of description. It will of course give birth to much controversy; many of the facts—to say nothing of the principles—will be disputed; for the subjects chiefly touched upon are such as most people suppose they know something of, and upon which they will be sceptical of any

EXPRESSION
We are all aware that some people ex-
press assent, for example, by signs which
others mean simple inquiry, or even downright
disent: and we are not clear about the manner in
which these little contradictions are to be recon-
ciled. This, to be sure, is a very small point; but
it will give some idea of the number of objections
likely to be poured in upon a treatise which in
its arguments are ingenious.

of the present position of the literature of the subject. We are all aware that some people mis-
understand, for example, by signs which with
others mean simple inquiry, or even downright
disputatious; and we are not clear about the manner in
which these little contrivances are to be inter-
preted. This, to be sure, is a very small point; but
it will give some idea of the number of objections
likely to be poured in upon a treatise which is

intended to be read by all classes. One thing, how-
ever, may be taken as beyond dispute, and that is
the literary value of the book. Even those who
had determined to question its scientific accuracy,
or its philosophical assumptions will own that its
style is as fascinating as its research is trained and
the arguments are ingenious.

—

—

