

## Literature.

## THE EXPRESSION OF THE EMOTIONS IN MAN AND ANIMALS.\*

IT might perhaps hardly be expected that any work Mr. Darwin would be likely to produce, could add to his reputation, yet we feel certain that this one will. Without possessing the same attraction of absolute novelty as the subject of his two former books, his present subject is yet so fresh in itself, so entirely new in its mode of treatment, that this last work, like its two predecessors, brings us at once into an unknown terra of thought, and fresh series of ideas. Writers on the same subject, on the method adopted by man, or rather innate in man, of expressing feelings and emotions, are plentiful enough, but they are nearly all empirical. One exception may be noted. That minute and careful observer, our Charles Bell, turned his attention to these points, and his treatise, published in 1825, on the "Anatomy and Philosophy of Expression," has up to the present time been the one scientific work on the subject. At the head of the empirics, we shall not go far wrong in placing Lavater, and his curious and clever book has, we may say, proved the text-book for all such as care to inquire into the subject. That book—at least in our recollection—is a record of shrewd observation, and considerable inductive skill; but he does not, we think, enter upon the proximate causes of expression, much less upon their final origin. Other books have been written, which profess to trace to their source the methods of

expression, but have, so far as our reading goes, been content with a plausible and fanciful theory, whenever they attempt to account for any not very obvious expression either in man or animal. Frowning, for instance, is said to be an action performed by the facial muscles in order to lessen the surface of the face, and leave less room for the play of unfeigned expressions (Mirieu's edition of Lavater).

When so little investigation had been made into the subject, it seems to have occurred to Mr. Darwin that it might, if properly treated, lend new confirmation to that great theory with which his name has been connected. It is evidently with this view that he took the matter up, and it is in such a light that he has throughout considered it. As to the results, we doubt if any impartial reader would not find that Mr. Darwin's results tell as much one way as the other. Some facts and conclusions make for his theory, others are decidedly opposed to it. If he has dwelt rather more strongly on the first, and paid less attention to the second class, we do not feel inclined to object. Mr. Darwin is possessed of a spirit—that strongest of all spirits, the spirit of a theory—and it affects all he sees. May we be allowed, while admiring his theory, and admitting its vast capabilities, to decline to admit that all things in heaven and earth are to be measured by the Darwinian standard?

The task Mr. Darwin has set himself, is to give a reason for all those winking instinctive movements by which we are wont to express the thoughts or feelings of our minds. Why do we frown when we are angry, weep when we are grieved, or scream when we are in physical pain? To these and many like questions, Mr. Darwin gives an answer, not perhaps always the true one, but always a logical and possible one. Those familiar with his writings will not need to be told of the clear logical reasoning, the careful logical method with which he joins fact after fact, conclusion after conclusion, into one perfect chain of argument. This we expected, as we did also the candour, which never attempts to colour or distort a fact to make it fit into a disorganised theory. The manner we know before, let us try and sketch the method.

The three grand principles on which Mr. Darwin's scheme is founded, are as follows:—1. The principle of servicable associated habits. 2. The principle of antithesis. 3. The direct action of the nervous system. In certain conditions, we find certain actions servicable. In looking at a distant object we frown to shade our eyes, from association we have got to frown in directing the mind, as well as the eyes, upon any object. Such habits may be inherited, as is shown by the pointing of a pointer pup, &c. This explains the first principle. As to the second, it is one of those brilliant notions that Mr. Darwin so frequently happens upon. He thinks that a certain state of mind induces actions exactly opposite to those induced by the opposite state of mind. A dog approaching another has his muscles loose and vent, ready for an immediate spring. A dog fawning on his master has all his muscles loose and relaxed, he wriggles and twists about, and in every way assumes an attitude the exact reverse of his hostile one. The actions accounted for by the third principle are mostly produced by extra nerve power, generated in excess, and obliged to vent itself in some usual manner. For us to follow closely the argument throughout would be impossible. Indeed, so close and minute is it, that we could never hope to get a sketch of it within our space, even could we venture an attempt at compression. We must be content to remark that it is illustrated by many careful observations on animals and mankind; the latter with children and adults. Further help has been given by photographs, some few of persons genuinely affected, and some of persons acting the passions under discussion. Something has also been learnt by galvanising special muscles, and photographing the face thus affected. Unhappily the photographs themselves are by no means satisfactory specimens of workmanship.

In conclusion, we may jot down a few casual remarks on various observations of our author. P. 42, he alludes to the trick that dogs have of turning round two or three times before lying down to sleep. Is it not the case that this habit is much more common in dogs leading an outdoor life than in those who have been further domesticated, and live entirely in houses? If this is so, and it is only from recollection we speak, not having had special attention before directed to the matter, it is a further argument, if one is needed, as to the inheritance of qualities. P. 106. It is stated that very few animals shed tears. Is this absolutely so, and are the cases of horses and deer weeping merely exceptional? P. 137. The business of the eel, when pleased, for rubbing itself against any object, is mentioned. Could this possibly arise from a desire to get rid of electricity, or is this altogether too fanciful a notion? P. 245. The cause of sneezing is discussed, and allusion made to the power possessed by some people of uncovering the canine teeth on one side of the face only. In a case that came under our own notice, this peculiarity was associated with partial blindness on the one side opposite to that on which the sneeze could be effected, and the patient was quite unable to uncover the canine teeth on his partly blind side, on the side, that is, on which he would never look towards any person. In another passage, the reference to which we have made, Mr. Darwin suggests that the difference between the right and left hand might have arisen from a constant habit of putting forward the side furthest from the heart in fighting. As a matter of fact, it is always the left side that is thrust forward by a right-handed man. P. 250. Mr. Darwin mentions a common gesture used by savages to express astonishment, that of putting the hand to the mouth. Of this he professes himself unable to offer an explanation. Could it not be associated with the similar gesture expressive of shyness in children, a gesture apparently caused by a desire to conceal the face?

Such are some of the notions that occurred to us in the reading of this book. We have merely met with any work so suggestive and full of new ideas. In fact, we are much mistaken if Mr. Darwin has not again invented a new science, or at least a new development of an old one.