

## MR. DARWIN'S NEW BOOK.

The author of the *Origin of Species* has just issued, under the *imprimatur* of John Murray, what is described by the London papers as "a solid and closely-packed volume," on the "Expression of the emotions in man and animals." The following extracts will give an idea of its general scope and purpose:

"Many writers consider the whole subject of expression as inexplicable. \* \* \* No doubt, as long as man and all other animals are viewed as independent creations, an effectual stop is put to our natural desire to investigate, as far as possible, the cause of expression. By this doctrine, 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 community 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 whole subject of expression in a new and interesting light. \* \*

A little gesture made by sulky children may here be noticed, namely, their "showing a cold shoulder." This has a different meaning, as I believe, from the keeping both shoulders raised. A cross child, sitting on its parent's knee, will lift up the near shoulder, then jerk it away as if from a caress, and afterward give a backward push with it, as if to push away the offender. I have seen a child, standing at some distance from any one, clearly express its feelings by raising one shoulder, giving it a little backward movement, and then turning away its whole body. \* \* \*

We have seen that the study of the theory of expression confirms to a certain limited extent the conclusion that man is derived from some lower animal form, and supports the belief of the specific or sub-specific unity of the several races; but, as far as my judgment serves, such confirmation was hardly needed. \* \* \*

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Weeping is probably the result of some such chain of events as follows: Children, when wanting food, or suffering in any way, cry out loudly, like the young of most other animals, partly as a call to their parents for aid, and partly from any great exertion serving as a relief. Prolonged screaming invariably leads to the gorging of the blood-vessels of the eye, and this will have led, at first consciously, and at last habitually, to the contraction of the muscles round the eyes in order to protect them. At the same time the spasmodic pressure on the surface of the eye and the distention of the vessels within the eye, without necessarily entailing any conscious sensation, will have affected, through reflex action, the lachrymal glands. Finally, through the three principles of nerve-force readily passing along accustomed channels—of association, which is so widely extended in its power—and of certain actions, being more under the control of the will than others—it has come to pass that suffering readily causes the secretion of tears, without being necessarily accompanied by any other action. Although in accordance with this view we must look at weeping as an incidental result, as purposeless as the secretion of tears from a blow outside the eye, or as a sneeze from the retina being affected by a bright light, yet this does not present any difficulty in our understanding how the secretion of tears serves as a relief to suffering. And by as much as the weeping is more violent or hysterical, by so much will the relief be greater—on the same principle that the writhing of the whole body, the grinding of the teeth, and the uttering of piercing shrieks all give relief under an agony of pain. \* \* \*

With young children, sulkiness is shown by pouting, or, as it is sometimes called, "making a snout." When the corners of the mouth are much depressed, the lower lip is a little everted and protruded, and this is likewise called a pout. But the pouting here referred to consists of the protrusion of both lips into a tubular form, sometimes to such an extent as to project as far as the end of the nose, if this be short. Pouting is generally accompanied by frowning, and sometimes by the utterance of a boeing or whooping noise. This expression is remarkable, as almost the sole one, as far as I know, which is exhibited much more plainly during childhood, at least with Europeans, than during maturity. There is, however, some tendency to the protrusion of the lips with the adults of all races under the influence of great rage. Some children pout when they are shy, and they can then hardly be called sulky. From inquiries which I have made in several large families, pouting does not seem very common with European children; but it prevails throughout the world, and must be both common and strongly marked with the most savage races, as it has caught the attention of many observers. It has been noticed in eight different districts of Australia, and one of my informants remarked how greatly the lips of the children are there protruded. Two observers have seen pouting with the children of Hindoos; three with those of the Kafirs and Fingoes of South Africa, and with the Hottentots; and two with the children of the wild Indians of North Amer-

ica. Pouting has always been observed with the Chinese, Abyssinians, Malays of Malacca, Dyaks of Borneo, and often with the New Zealanders. Mr. Mansel Weale informs me that he has seen the lips much protruded, not only with the children of the Kafirs, but with the adults of both sexes, when sulky; and Mr. Stack has sometimes observed the same thing with the men, and very frequently with the women of New Zealand. A trace of the same expression may occasionally be detected even with adult Europeans. We thus see that the protrusion of the lips, especially with young children, is characteristic of sulkiness throughout the greater part of the world. This movement apparently results from the retention, chiefly during youth, of a primordial habit, or from an occasional reversion to it. Young orangs and chimpanzees protrude their lips to an extraordinary degree when they are discontented, somewhat angry, or sulky; also when they are surprised, a little frightened, and even when slightly pleased."

I have endeavored to show in considerable detail that all the chief expressions exhibited by man are the same throughout the world. This fact is interesting as it affords a new argument in favor 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. No doubt similar structures, adapted for the same purpose, have often been independently acquired through variation and natural selection by distinct species; but this view will not explain close similarity between distinct species in a multitude of unimportant details. Now, if we bear in mind the numerous points of structure having no relation to expression. In which all the races of man closely agree, and then add to them the numerous points, some of the highest importance, and many of the most trifling value, on which the the movement of expression directly or indirectly depend, it seems to me improbable in the highest degree that so much

similarity, or, rather, identity of structure, could have been acquired by independent means. Yet this must have been the case if the races of man are descended from several aboriginally distinct species. It is far more probable that the many points of close similarity in the various races are due to inheritance from a single parent-form, which had already assumed a human character.

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## A NEW PHASE OF DARWINISM.

Mr. Darwin comes up smiling. All the orthodox denunciation; all the scientific distrust; all the individual distaste that have been expressed in regard to his doctrine tracing the origin of man back to that of the monkey, only seem to have rendered his good-nature imperturbable. If his views be still theoretical, he shows a fertility of resource, and a verisimilitude to demonstration, that is highly entertaining, if not yet absolutely useful. The latest phase of evolution comes in the form of a book which Mr. Darwin has published on "The Expression of the Emotions in Man and Animals," but brief glimpses of which have as yet been given through the press. All those who are familiar with Mr. Darwin's faculty of specializing from his grand generalization, and the extensive resources of his reading and observation, will conceive that it has been possible for him to discover and explain many interesting curiosities.

Mr. Darwin starts out with recalling the fact that it has been customary to regard the whole subject of expression as inexplicable. He holds that this has been the case simply because of the practice of regarding men and animals as independent creations, and that his theory of a common origin of species elucidates what has heretofore been a mass of apparent contradictions, and an arbitrary jumble. At the same time, by an ingenious process of compensation, the similarity of expressions that is traced between men and animals is made to contribute to the establishment of the doctrine of evolution. This is something akin to what logicians call arguing in a circle; but excellent results have been attained by a similar process in astronomy, and what is tolerable in exact science may certainly be admitted in metaphysics. A few of Mr. Darwin's illustrations may be briefly recited to make his new application plain. The bristling of the hair under the influence of extreme terror can only be explained, says Mr. Darwin, in the belief that man once existed in a lower and animal-like condition, where this expression is common. The same is true, he holds, of a similar movement of the facial muscles in the laughter of men and monkeys. The common gesture of children in jerking away one shoulder, when in a pettish mood, finds a counterpart in the action of certain animals. Weeping is traced by Mr. Darwin to the usual outcry of

children and animals when hungry,—a prolonged screaming, filling the blood-vessels of the eye, contracting the muscles, and effecting the lachrymal glands. Tears, which are thus traced to a natural source, eventually become habitual and imitative, which accounts for the common expression of pain or grief in weeping. Pouting is one of the most curious illustrations which Mr. Darwin brings to his theory. The protrusion of the lower lip is the common mode of expressing anger or discontent among the young orangs and chimpanzees. Among civilized people, this expression is still common with the children, and Mr. Darwin has collected evidences that it is universal among the Chinese, Abyssinians, Malays, Kafirs, Fingoes, Hottentots, Indians, and a host of other barbarous and semi-barbarous peoples, even when they become adults.

One charm of Mr. Darwin's applications is that they are susceptible of amplification according to individual experience. He might find in this a practical confirmation of his doctrine. One instance of expression that would naturally occur to everybody would be the commonly-quoted similarity between the cackling of a hen with one chicken and the petting tones of a mother with one child. There would be a mutual verification of the cases in which man's hair had turned white in one night with great grief, and the black crow that turned white in the same length of time at the fright of a shot which didn't hit him. This would be mainly convincing to the man who saw the crow turn white. The low, grumbling tones of the uniformly selfish man compared to the grunts of the swine; the mellow voice of a sweet and amiable woman and the notes of the free and happy birds; the nestling propensities that are to be found in the young offspring of men and animals; these and many other variations will be suggested by the resemblances that Mr. Darwin has found, though the latter has entered into the detail of expression with wonderful industry of research. Whether or not any individual reader may find in these similarities any further proof of a common origin of races, all will experience a pleasure in following his curious identity of expression, which, at least, has a more plausible explanation in the doctrine of evolution than it has ever before received.

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