

MR. DARWIN ON EXPRESSION IN MAN AND ANIMALS.

THE very first thing which must strike almost every reader in that kind of turning over these leaves which usually precedes the deliberate perusal of a book is, that the great naturalist who wrote the volume is an observer of his own children to a degree, in ways, and with incidents of method eminently adapted, though he seems totally unconscious of the fact, to wake up the sense of the ludicrous. In one place Mr. Darwin's words clearly imply that he kept a note-book in which he recorded his ideas of passing expressions on the faces of his own infants; and, in fact, we find that he believes he knows the exact dates at which they first smiled, sobbed, or shed tears. How many children he has is a question which a parent can scarcely help wondering about, and his own amiable frankness almost invites speculation. As, for example, on page 287: "Several years ago, I was surprised by seeing *several of my young children* earnestly doing something together on the ground; but the distance was too great for me to ask what they were about. Therefore I threw up my open hands with extended fingers above my head; and as soon as I had done this I became conscious of the action. I then waited, without saying a word, to see if my children had understood this gesture; and, as they came running to me, they cried out, 'We saw that you were astonished at us.'" Now, as Mrs. Partington said, "It's a wonderful world—my husband knowed a woman as had had eighteen children in five years, or five children in eighteen years, I ain't sure which." And certainly these words, "*several of my young children*," do suggest a brood large enough to furnish an ample field of investigation for an inquiring mind. There is nothing really and finally ludicrous in one's taking notes of the facts nearest to us, and using them for scientific purposes. I took such notes when I was a boy, and yet possess the records of them, but I could not do it now; and I find I cannot help laughing at other people's doing it. The reader may be amused by some illustrative extracts from Mr. Darwin's volume:—

Page 39. "I observed that though my infants started at sudden sounds when under a fortnight old, they certainly did not always wink their eyes, and I believe never did so. The start of an older infant apparently represents a vague catching hold of something to prevent falling. I shook a pasteboard box close before the eyes of one of my infants, when 114 days old, and it did not in the least

wink ; but when I put a few comfits into the box, holding it in the same position as before, and rattled them, the child blinked its eyes violently every time, and started a little."

Page 86. "It is curious how early in life the modulation of the voice becomes expressive. With one of my children, under the age of two years, I clearly perceived that his humph of assent was rendered by a slight modulation strongly emphatic ; and that by a peculiar whine his negative expressed obstinate determination."

Page 153. "Infants, whilst young, do not shed tears or weep, as is well known to nurses and medical men. This circumstance is not exclusively due to the lacrymal glands being as yet incapable of secreting tears. I first noticed this fact from having accidentally" [oh, ah !] "brushed with the cuff of my coat the open eye of one of my infants, when seventy-seven days old, causing this eye to water freely" [monster !] ; "and though the child screamed violently, the other eye remained dry, or was only slightly suffused with tears." This is followed by a series of observations as to the dates at which inchoate or complete crying set in with different children : *e.g.*, "A similar slight effusion occurred ten days previously in both eyes during a screaming fit. The tears did not run over the eyelids and roll down the cheeks of this child whilst screaming badly, when 122 days old. This first happened" [—in your knowledge, you mean ? or did you keep up a sleepless watch for seventeen days and nights, ready to interrogate nature still further with coat-cuff and noise-boxes ?] "seventeen days later, at the age of 139 days In one case, I was positively assured tears ran down at the unusually early age of forty-two days."

Page 157. "With one of my infants, when seventy-seven days old, the inspirations" [in a screaming fit] "were so rapid and strong that they approached in character to sobbing ; when 138 days old I first noticed distinct sobbing. . . . The keepers in the Zoological Gardens assure me that they have never heard a sob from any kind of monkey." This really seems to disappoint Mr. Darwin !

Page 159. "I asked one of my boys to shout as loudly as he possibly could, and as soon as he began he firmly contracted his orbicular muscles ; I observed this repeatedly, and on asking him why he had every time so firmly closed his eyes, I found he was quite unaware of the fact ; he had acted instinctively or unconsciously."

Now this should have been illustrated : "Master Darwin shouting as loudly as he could at the request of Mr. Darwin." However, desiring to make my experiments as inclusive as possible, I took advantage of the season of Christmas to request various groups of young people to shout as loudly as possible. I tried it on in many ways. I told some to shout whatever they pleased ; others to do the Australian *cooey* ; others to say, "New potatoes !" others, "Bank, Bank, Elephant and Castle ;" others, the simple Hooray ! But I

regret to add the results were too various and undecided for Science. They all manifested a desire to continue these exercises longer than was found agreeable by unscientific listeners; but, in other particulars, the want of unanimity was very curious. So far from contracting the orbicular muscles, some of them opened their eyes very widely in the act of shouting. I tried it myself, and found I did the same. I then asked my young friends to perform sundry indifferent actions—"Give me that tumbler,"—"Let me look at your doll,"—"Your shoe wants lacing,"—and so on; and the same want of unanimity was visible. Some opened their eyes wider; some went nearer to closing them. Indeed Mr. Darwin says, page 163, "Dogs and cats in crunching hard bones always close their eyelids, and at least sometimes in sneezing, though dogs do not do so while barking loudly. Mr. Sutton carefully observed for me a young orang and chimpanzee, and he found that both always closed their eyes in sneezing and coughing, but not while screaming violently. I gave a small pinch of snuff to a monkey of the American division, namely, a Cebus" (this also should have been illustrated), "and it closed its eyelids whilst sneezing, but not on a subsequent occasion, whilst uttering loud cries." By-the-bye, how were the loud cries produced? The man who would give snuff to an innocent Cebus would—

This snuff-anecdote reminds me, in passing, of another, page 57. "The conscious wish to perform a reflex action sometimes stops or interrupts its performance, though the proper sensory nerves may be stimulated. For instance, many years ago I laid a small wager with a dozen young men that they would not sneeze if they took snuff, although they all declared that they invariably did so; accordingly they all took a pinch, but from wishing to succeed not one sneezed, though their eyes watered; and they all, without exception, had to pay me the wager." This, too, should have been illustrated, and, as we may presume that Mr. Darwin spent the wager in a handsome manner, we might have had a drawing also of the symposium which we may suppose to have resulted.

Page 169. "As the lacrymal glands of children are easily excited, I persuaded my own and several other children of different ages to contract these muscles" (the muscles surrounding the eyes) "repeatedly, with their utmost force, and to continue doing so as long as they possibly could; but this produced hardly any effect. There was sometimes a little moisture in the eyes, but not more than apparently could be accounted for by the squeezing out of the already-secreted tears within the glands."

Page 189. "I made three of my children, without giving them any clue to my object, look *as long and as attentively as they could* at the summit of a tall tree, standing against *an extremely bright sky*. With all three, the orbicular, corrugator, and pyramidal muscles were energetically contracted . . . so that their eyes might be

protected from the bright light. But they tried their utmost" (the patient little angels!) "to look upwards, and now a curious struggle, with spasmodic twitchings, would be observed."

Page 201. "I touched with a bit of paper the sole of the foot of one of my infants when only seven days old" (where was Mrs. Darwin? where was the nurse?), "and it was suddenly jerked away, and the toes curled about, as in an older child." Once more, who will not regret that this scene was not photographed, and the result reproduced for the benefit of the reader?

The reasons which induce the scientific investigator of the natural language of emotion to pay so much attention to the movements of the trunk, face, and limbs in childhood are obvious enough—you are then pretty sure of getting your facts unsophisticated by self-consciousness in the subject you are observing, and you get them in as near their primitive forms as you can. But there is something irresistibly comic in the idea of a highly cultivated man, in whom high moral feeling is plainly discernible, making "subjects" of his own children in the interest of science: especially when the study is pursued in the light of the idea that man is descended from a hairy quadruped (—upon the general question suggested by the last clause it is not now my intention to say anything). It is plain, too, that children, like grown people, must be observed over as wide a range as possible. Probably, its being known among a given number of persons, not quite infants, that they were the subjects of incessant or very frequent (it must, by-the-by, be practically incessant) scientific scrutiny, would generate a sort of hyperæsthesia, which might go some way to vitiate the observations! And certainly no scientific rectifications, deductions, or verifications could deprive, say, a Darwinian subject of the Darwinian idiosyncrasy. Of course Mr. Darwin knows this, and much more, a great deal better than I do, and he has taken great pains to make his observations as wide as possible. It is not for me to take upon myself to praise him; but I may at least say that no one can more seriously admire his way of going to work than I do. The subject of the natural language of human emotion has already been mentioned as one of the topics to be taken up in the papers in which I have provisionally,—making no final assumption,—adopted, for distinctness' sake, the forms of phrenology and craniology; it has been a study with me, more or less, from my early youth; it has occasionally turned up in casual writings of mine; and I live in hope of some day dealing seriously with it. All that I shall now do will be but desultory,—one of my reasons being that until I have made certain inquiries I could not tell whether I might not be trespassing on another's domain.

The second matter that caught my own eye in running over these pages was what is said upon the attitude of prayer or devotion, at page 221:—

“A humble kneeling posture, with the hands upturned and palms joined, appears to us, from long habit, a gesture so appropriate to devotion, that it might be thought to be innate; but I have not met with any evidence to this effect with [among] the various extra-European races of mankind. During the classical period of Roman history it does not appear, as I hear from an excellent classic, that the hands were thus joined during prayer. Mr. Hensleigh Wedgwood has apparently given the true explanation, though this implies that the attitude is one of slavish subjection: ‘When the suppliant kneels and holds up his hands with the palms joined, he represents a captive who proves the completeness of his submission by offering up his hands to be bound by the victor. It is the pictorial representation of the Latin *dare manus*, to signify submission.’ Hence, it is not probable that either the uplifting of the eyes or the joining of the open hands, under the influence of devotional feelings, are [is an?] innate or truly expressive actions [action?]; and this could hardly have been expected, for it is very doubtful whether feelings such as we should now rank as devotional affected the hearts of men whilst they remained during past ages in an uncivilised condition.”

To this extract Mr. Darwin appends a note, stating that “Mr. Tylor, in his ‘Early History of Mankind,’ gives a more complex origin to the position of the hands during prayer.”

There is also, in immediate proximity, the following.—“Sir C. Bell remarks that, at the approach of sleep, or of a fainting-fit, or of death, the pupils are drawn upwards and inwards, and he believes that ‘when we are wrapt in devotional feelings, and outward impressions are unheeded, the eyes are raised by an action neither taught nor acquired;’ and that this is due to the same cause as in the above cases.”

It is difficult for me to say anything worth reading upon the foregoing without trenching upon ground which, as already stated, I reserve; and I have read neither Mr. Tylor’s nor Mr. Hensleigh Wedgwood’s book; following in this case my usual long-continued practice (a good one, I believe), of exhausting my own resources in speculation and in the collection of facts, before making myself familiar with the labours of others. But that Mr. Hensleigh Wedgwood’s account of the matter is complete seems out of the question.

I can no more make sure of what others mean by the word “innate,” in such a case as this, than of what they mean when they talk of the material *noumenon* that underlies material *phenomena*; and that puzzles the case at starting. But if we admit the *dare manus* solution as to the technically correct gesture for prayer, another question arises. We do, in point of fact, offer up ourselves with entire submission to God, when we are in the act of devotion. Now, *supposing* the experience of devotion to have occurred to a human being before he had had any experience or observation of submission to a

conqueror, would the devotional feeling have chosen any such outlet of gesture as that which Mr. Darwin considers wholly derived and conventional? It looks as if everything of the kind must be partly so, *i.e.*, must be subject to all the varied influences which come under the word culture; but that is not the main point, and the main point is certainly not to be solved by any one man's or any hundred men's observation of what "extra-European races" do. Here, as elsewhere, the naturalists seem too fast by half.

The devotional attitude which we have just called the technical one is in some respects strained, unnatural, and, indeed, scarcely possible. It has been said that the Discobolus would, in fact, pitch over if he were a living man bending forward like the statue; and it has often struck me, in looking at pictures of kneeling saints, that they were performing a very difficult feat of self-balancing. This is particularly suggested if the palms be really joined as nearly flat as possible; any one who tries will find the gesture a very uneasy one. Is it often seen in actual life? I have before me a picture of a kneeling girl, which I have called for "quite promiskus." One knee is advanced before the other, the body is drawn back in such a way that the attitude is an approach to sitting, the head is bared, and the hands are joined, but not flat palm to flat palm; rather as we join our hands when we scoop up water.

I have also before me a Raffaele of the Virgin and Child. The expression of the face in the mother is relaxed even to voluptuousness. The eyelids droop, the head bows very much,—a kiss is coming; the hands are approached or approaching around the infant in a manner which so strongly suggests the attitude of devotion, that my very first remark upon the picture was that the whole expression of the Virgin was that of voluptuous worship. Mr. Darwin may have overlooked the full force of what is conveyed in those words of his with which he opens this very subject:—"Devotion is, in some degree, related to affection" [yes, in a very large degree], "though mainly consisting of reverence, often combined with fear . . . With some sects religion and love have been strangely combined;" and so on.

I have also before me a photograph of a picture in the Louvre, by Girard. Cupid is half embracing Psyche. He is in an attitude which a single thrill of emotion might instantly convert into kneeling, and the hands (again!) remind you of the gesture of devotion. The right is with extreme tenderness brought round the back of the head of Psyche; the left is, if possible, still more tenderly passing round her neck, as the god stoops, with drooped eyelids, to kiss her forehead.

In this picture we are instantly reminded of two things, neither of them noticed by Mr. Darwin. One is, that very striking and expressive gesture in which we gradually approach the finger-tips of the hands when we are, to coin an Americanism, delicately and with some

hesitation, either as to our audience or ourselves, *precising* an idea, or a wish.

This appears to be in some way connected with the peculiar sensibility of the finger-tips. That is a commonplace, and we all know, in the playfulness of affection between ourselves and our children, and otherwise, that an extremely gentle touch with the tips of the fingers will cause strong thrills in the touched person.

The second thing overlooked, or at all events not mentioned, is the tendency of many strong emotions to weaken the knees. Terror does it, but love does it too:—

“ Her blue, affrayèd eyes wide open shone,
Upon his knees he sank, pale as smooth-sculptured stone ; ”

The same exquisite poet has told us that gods do not suffer in this way—

“ Into the green recessed woods they flew,
Nor turned they pale, as mortal lovers do ; ”

—but the painter could only make real to us the feeling of love in a god by making him *ad hoc* human, and the Cupid in Girard's picture looks, as I have said, as if his knees might at any moment fail him (—the necessary divine buoyancy being expressed by the half-expanded wings—). As early as my seventeenth year, I had recorded the observation that the desire to embrace is usually associated in a person in the erect posture with a desire to kneel ; and, after many years, I still say it is the fact. A parent can scarcely fondle a child very much without feeling the impulse. When once love rises to the height of self-devotion, however obscurely felt, the tendency is to relinquish the erect attitude. This can hardly be new,—enunciated thus crudely, at all events,—but is it not pertinent ?

Now, to come to the hands. It is perfectly possible that the, or a natural attitude of devotion should become, so to speak, technicised or conventionalised into the hard *dare manus* gesture of the captive : but can that be the whole of the matter ? I think not ; and here, it is probable that I am going to say some at least of what Mr. Tylor has said. If yes,—that will be interesting ; if no, that may possibly be still more interesting.

Under the influence of love, we make gestures as if to fold the beloved person to ourselves, (—this is only a part of the case, but it is enough for our purpose—) and, in supplication we are apt to make movements as if ready to receive or gather something—spreading the hands outward, palms up, and sometimes lifting them up. “ And [Solomon] stood before the altar . . . upon . . . the . . . scaffold in the midst of the court, and kneeled down upon his knees, and *spread forth his hands towards heaven* [And] when Solomon had made an end of praying, *the fire came down from heaven.* ”

Whatever Mr. Darwin's or any other "excellent classic" may say about the *technical* gesture of prayer, the gesture of invocation may be traced in every nation, Semitic or Aryan, that ever worshipped. But that is not all. There is another gesture, not anywhere noticed by Mr. Darwin in this book; a most expressive and affecting gesture, and one which I have seen spontaneously employed in very young children in times of keen expectation mingled with solicitation—I mean, the clasping and wringing of the hands. This gesture is well known, and it is common when the ideas present to the mind are agreeable ones, as well as in anguished supplication. Now, why should not the joining of the hands in prayer, where that gesture is adopted, be a natural modification of the two gestures of invocation (or preparation for receiving something) and intense supplication? I have, as a matter of fact, often been present when prayer was being offered,—I have chiefly women in my mind,—when I have seen the joining of the hands change about from minute to minute, taking every shape, from that of intense clasping to that of the scoop and the more restrained form proper to the *precising* of a petition. As to kneeling, it is common to many forms of strong emotion, including even sudden delight; but in passionate prayer the attitude will often vary. The praying person will half or entirely raise himself, sway to and fro, clasp any near object, rise to his feet, and spread out the hands, then drop down on his knees, and so on.

The three leading principles relied upon by Mr. Darwin in his investigations are—1. The principle of serviceable associated habits; 2. *The principle of Antithesis*; and 3. The constitution of the nervous system independently, from the first, of the will, and independently, to a certain degree, of habit. The second of these principles, that of Antithesis, is not definitely referred to him in connection with the conventional attitudes of devotion; but one can hardly conceive a case of expression in which, whatever value the principle has, might be more plainly drawn upon by the facts. The following passages will give some idea of the manner in which Mr. Darwin works the principle in question:—

"We will now consider our second principle, that of Antithesis. Certain states of the mind lead to certain habitual movements, which were primarily or may still be of service; and we shall find that 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 have never been of any service. * *

"When a dog approaches a strange dog or man in a savage or hostile frame of mind, he walks upright and very stiffly; his head is slightly raised, or not much lowered; the tail is held erect and quite rigid; the hairs bristle, especially along the neck and back; the pricked ears are directed forwards, and the eyes have a fixed stare. These actions, as will hereafter be explained, follow from the dog's

intention to attack his enemy, and are thus, to a large extent, intelligible. * * * * *

“Let us now suppose that the dog suddenly discovers that the man whom he is approaching is not a stranger, but his master; and let it be observed how completely and instantaneously his whole bearing is reversed. Instead of walking upright, the body sinks downwards or even crouches, and is thrown into flexuous movements; his tail, instead of being held stiff and upright, is lowered, and wagged from side to side; his hair instantly becomes smooth; his ears are depressed and driven backwards, but not closely to the head; and his lips hang loosely. From the drawing back of the ears the eyelids become elongated, and the eyes no longer appear round and staring. It should be added that the animal is at such times in an excited condition from joy, and nerve-force will be generated in excess, which naturally leads to action of some kind. * * *

“As the power of intercommunication is certainly of high service to many animals, there is no *à priori* improbability in the supposition that gestures manifestly of an opposite nature to those by which certain feelings are already expressed should at first have been voluntarily employed under the influence of an opposite state of feeling. * * *

“Dr. Scott, of the Exeter Deaf and Dumb Institution, writes to me that ‘opposites are greatly used in teaching the deaf and dumb, who have a lively sense of them.’”

The feeling of worship is, we all admit, a very complex one, but if there is anything to which it is directly antithetic it is the feeling of Authority. (That a savage may flog his fetich is, of course, not pertinent to the case.) The attitude and gestures of authority are among the numerous types not considered by Mr. Darwin in this book; but they are not unlike those of hostility—in which, of course, the sense of power is largely concerned—and these he has considered. What he has said of an angry dog is much to the point—even down to the wide-open eyes and all the rest of it. Under the feeling which induces us to give out authoritative commands, the back is even more than erected, the head is thrown firmly up, and, if Self-Esteem be strong, a good deal backwards. The whole attitude is rigid: the legs are firmly planted; the arm is stretched stiffly forward; the fingers, except the first, are usually drawn in tight upon the palm; the first finger is stiffly extended; the eyes, wide open, are directed firmly upon the person addressed. All this is, of course, the reverse of the ordinary attitudes of devotion; and we may observe, in proportion as the tone of a petition acquires force and urgency, a tendency to glide into attitudes more or less closely approaching those of command. The question whether man first experienced the feeling of command or that of worship, and which must be considered as the first term of contrast, may be deferred until we have, at least, found

a satisfactory number of the much-desired variations in the remoter crust of the planet. It is nearly as interesting as the inquiry whether the first chick came from an egg or the first egg from a chick, or a kind-o'-sort-o' chick-god.

Among the more expressive gestures which Mr. Darwin has not noticed are those of Vanity. These constitute a striking group. In a farce called, I think, "A Wife for an Hour," a showily dressed housemaid is suddenly called upon to personate a lady. Of course she overdoes her part in some respects and underdoes it in others. The young gentleman who engages her puts her through her paces as well as he can at such short notice, and, among other things, he tests her walk. But he bursts into angry criticism as he takes a back view of the girl's style of locomotion,—“Don't waggle so!” Now, the characteristic attitudes and gestures of the feeling of Vanity may perhaps all be summed up in the word *waggle*. The head, the shoulders, and the flanks all partake of the movements in question, and the effect is sometimes highly ludicrous. Of course women of fine natures or of much culture do not waggle, but whenever the feeling of vanity is excited the *tendency* is visible in almost all women; and of the majority it may safely be said that they all waggle. An ordinary woman of the lower or middle class waggles the moment she puts on any article of dress which she fancies is caviare to the general. The phrenologist, in recounting facts of this kind, points to the situation of his organ of Approbativeness, to its much greater size in the heads of women than of men, and then says, “Here we have the natural language of the organ.” Of course this is not satisfactory; but as I firmly adhere, after many years of observation, to the Cranioscopy, I am bound to recall what the phrenologist would have to say.

There is a form, a “variation,” of waggling, which Mr. Darwin does not notice, though it is very noticeable, especially in children. He has much to say about the shrug of the shoulders, which in some people—(by no means in all *)—is the appropriate gesture of the sense of inability asserting itself. But there is another gesture, that, namely, of *I won't* with reasons of vanity behind it; the gesture of coquettish refusal, more or less angry, more or less humorous. This may be seen to great perfection in children, and in actresses of the stamp of Miss E. Farren, Miss Kate Santley, and so on. It consists in swaying the shoulders (*not* shrugged) backwards and forwards, and in a grown person is often accompanied with the devil's tattoo beaten by the foot. When there is no element of pleasantry,—and no reserve of hesitation,—in the person; especially if it be a child, the action is often very violent. But I think it is seldom seen at the very com-

* I somewhere once saw the observation that no very conscientious man ever shrugs his shoulders. This is not true, but there is something in the remark—which *must* stand over for the present.

mencement of a contest between a child and its guardian. It comes on later, when submission would apparently involve a sacrifice of pride or vanity. But there is always some degree of indecision about the meaning of this gesture.

In this respect it is nearly allied to another, which may be called the Deliberative gesture—the gesture of the Considering Cap. I have now before my mind an exact image of a great man of business, a chairman of a Parliamentary Committee on a private bill, settling, before affixing his signature, a very important clause in that bill—the Liverpool Improvement. I happened to be present at the later stages in committee of that ticklish measure, and was much struck by the picture presented by Mr. Ellice, the chairman, as he read some of the clauses for the last time. There was a brisk movement of the head and shoulders from side to side; the whole figure being slightly agitated; and the head every now and then steadying itself on its pivot, as a resolution was come to, upon the advisability or inadvisability of certain words. Every observant person is familiar with this gesture of the Considering Cap, and it is an interesting one to notice, especially where moral considerations are present to the mind of the person who, for the time, is the wearer of the cap. The phrenologist would say, “We have here the natural language of Cautiousness, Conscientiousness, and Firmness;” and, at all events, the indecision of the person is shown in the swaying of the head from side to side, and the decision in the gradual subsidence of this and the related movements, in the steadying and erecting of the head.

Not very far removed from this line of comment is that which brings us back for a moment to the gestures proper to contempt. Mr. Darwin refers to the snapping of the fingers by which some of us express sudden and decisive depreciation, and also to the use of the tongue for purposes of insult. Of the snapping of the fingers no explanation is suggested by Mr. Darwin or any writer whom he quotes. Two things strike me at once about this gesture. One is that the noise made in the process *may* not be an essential part of whatever fitness it may have for its purpose. It may merely derive its emotional significance from its use in cases where we snap aside or puff aside any small trifles that are in the way, or that we wish to project to a distance. Suppose you find a shot in a joint of a pigeon or partridge at a picnic—you take it up in your fingers, and then, perhaps, snap it away into the air. It is a ready way of getting rid of a very small thing, and it is accompanied with a little sense of power. Sometimes, again, we amuse ourselves with shooting, say, cherry-stones to a distance, with the finger and thumb—and the use of this snapping as a gesture of contempt might possibly refer itself to our habits in this and similar instances: *q. d.* It is of no more consequence than a thing that I can get rid of as lightly as a cherry-stone or a pea.

I do not, however, say that this is the case, and another thing at once arises in the mind. The snapping of the fingers is not so much a gesture of contempt in the strong sense as of the indifferent sense of superiority, a sense as of one who has overcome an obstacle or can afford to treat it with utter carelessness. Everybody knows at once what I mean. Lady Dundonald says, that when Dundonald had got her across the Border fairly married, he snapped his fingers and said, "I don't care now, Mousey; all the world can't take you from me." There seems to be some element of pleasure in the state of mind which leads us to express indifference by snapping our fingers. Now the snapping of the fingers is a common accompaniment of rustic dancing; and (like the use of the castanets) looks as if it were instinctively employed to emphasise, by the sound and by successful effort in overcoming slight resistance, the sense of physical power. There is usually some degree of buoyancy present in the emotion which leads us to snap our fingers.

And the same idea of buoyancy comes to the surface, when we consider some of the signs more strictly proper to contempt. For example, when we say pooh! or pah! or bah! very emphatically, or thrust out our lips and make a puffing movement with our mouths. Mr. Darwin seems to think these movements with our lips are derived from the movements proper to spitting out something abhorrent, but that does not seem to me clearly made out. Every reader will call to mind how Mephistopheles says a love-sick fool is ready to puff away sun, moon, and stars to please a girl, and it is perhaps as plausible to trace some of the signs of contempt made with the mouth to the gesture with which we puff a feather or any other very light matter into the air.

The lolling out of the tongue is, Mr. Darwin finds, universally employed as a sign of contempt. This is certainly not my observation. The *protruding* of the tongue, accompanied by the wagging of it, the distortion of the face, and certain sounds, is a common sign of contempt—and, take it which way you will, the facts look well suited to Mr. Darwin's purpose. But very, very large ranges of observation are necessary before we form conclusions in these matters. Another explanation of the thrusting out of the tongue is suggested by a little reflection. And in no sense can the tendency to use any such gesture be called "innate." Children catch the practice of each other, but it does not appear to come naturally to those who are well nurtured. And we must not forget here the admitted tendency to use the tongue as a sort of sympathetic rudder in a great many cases. All the children ever noticed by me had a way of putting out the tongue when writing, drawing, or painting, and in some other cases. And all children are told to put their tongues in, to cover their mouths when they gape or cough, and to turn away their faces if anything absolutely compels the opening of the mouth too widely. This is not the whole of what might be said (if this were a scientific periodical); and the

more I think of it, the less reason do I see for connecting some of the movements in question with the spitting out of offensive matters.

On the subject of that half closing of the eyelids which sometimes accompanies the natural language of haughtiness and scorn, Mr. Darwin speaks as if the closing were meant to say that the despised person was not worth looking at. But is that so? Is it not rather that when the head is lifted upwards and backwards in order to give the feeling of as much distance in the way of height as possible being placed between the despiser and the despised, the eyelids partake of the general movement, and the eyes are made to look *down* upon the object of contempt? That is certainly the idea suggested by the photograph given by Mr. Darwin of a girl who is supposed to be tearing up the portrait of a contemned suitor—not at all that the eyes are veiled by the drooped lids because the thing or person is not worth looking at.

On the subject of Shame, and Modesty, and Blushing, Shyness, &c., Mr. Darwin is exceedingly amusing in what he says, very acute, and perfectly fair and candid. The following anecdote is too good not to be quoted entire :—

“I will give an instance of the extreme disturbance of mind to which some sensitive men are liable. A gentleman, on whom I can rely, assured me that he had been an eye-witness of the following scene :—A small dinner party was given in honour of an extremely shy man, who, when he rose to return thanks, rehearsed the speech, which he had evidently learnt by heart, in absolute silence, and did not utter a single word ; but he acted as if he were speaking with much emphasis. His friends, perceiving how the case stood, loudly applauded the imaginary bursts of eloquence, whenever his gestures indicated a pause, and the man never discovered that he had remained the whole time completely silent. On the contrary, he afterwards remarked to my friend, with much satisfaction, that he thought he had succeeded uncommonly well.”

The substance of what the great naturalist has to say upon the genesis of blushing is contained in the passages now to be reproduced :—

“The fact that blushes may be excited in absolute solitude seems opposed to the view here taken, namely, that the habit originally arose from thinking about what others think of us. Several ladies, who are great blushers, are unanimous in regard to solitude ; and some of them believe that they have blushed in the dark. From what Mr. Forbes has stated with respect to the Aymaras, and from my own sensations, I have no doubt that this latter statement is correct. Shakspeare, therefore, erred when he made Juliet, who was not even by herself, say to Romeo (Act ii. sc. 2) :—

“Thou know’st the mask of night is on my face ;
Else would a maiden blush bepaint my cheek,
For that which thou hast heard me speak to-night.”

But when a blush is excited in solitude, the cause almost always relates to the thoughts of others about us—to acts done in their presence, or suspected by them; or again when we reflect what others would have thought of us had they known of the act. Nevertheless one or two of my informants believe that they have blushed from shame at acts in no way relating to others. If this be so, we must attribute the result to the force of inveterate habit and association, under a state of mind closely analogous to that which ordinarily excites a blush: nor need we feel surprise at this, as even sympathy with another person who commits a flagrant breach of etiquette is believed, as we have just seen, sometimes to cause a blush.

Finally, then, I conclude that blushing, whether due to shyness—to shame for a real crime—to shame from a breach of the laws of etiquette—to modesty from humility—to modesty from an indelicacy—*depends in all cases on the same principle; this principle being a sensitive regard for the opinion, more particularly for the depreciation of others, primarily in relation to our personal appearance, especially of our faces; and secondarily, through the force of association, and habit, in relation to the opinion of others on our conduct.*"

The whole of what Mr. Darwin writes upon these topics is full of that kind of candour which springs from high moral apprehensiveness and from that only.* He is perfectly right in believing that we may blush in secret and for actions that have no (direct) reference to others; but his explanation of the fact that we do not blush from the sense of guilt towards God, cannot, I think, be admitted. Nor, till the facts relating to the flush of silent solemn indignation have been co-ordinated, can his analysis of the subject of blushing be taken for complete. I know a man, who, when he was a boy, engaged in certain difficult tasks of self-culture, used to make record and sign vows to *himself* to do certain things. And to recall a breach of one of these vows was often accompanied by a blush—at night and in bed. It would, I fancy, take a great deal to persuade this man that his blushes had the precise remote parentage Mr. Darwin assigns to them. But as his sensations would prove nothing to anyone but himself, we will leave the subject for the present, simply repeating that the flush of moral indignation (—not necessarily anger, and not necessarily accompanied by any impulse to act—) must be more carefully considered before we decide upon this question. There are other matters which also require (I think) more consideration than Mr. Darwin has given them;—but he is permitted to do in a scientific work what I could not do in these pages without, perhaps,

* Contrast—I quote at random, on the spur of the moment—Bacon, when he speaks of "the Anabaptists and other such furies," and Milton, where he says, tenderly, "the Anabaptists, if we read them aright." (I do not forget Münzer, or the difference in dates.)

offending some readers. The taking "offence" would be, in my opinion, quite without cause; but my literary experience does not encourage me to risk much in such cases.

Some of the passages which relate to the erecting of the hair and feathers under certain kinds of excitement are highly interesting, and the interest of the text is admirably seconded by that of the illustrations. The picture of a swan ruffled with anger, and of a mad woman with her hair on end, are capital. It appears to be not uncommon for the medical and other attendants of mad people, to be able to judge of their condition, considered as favourable or unfavourable, by the smoothness or roughness of their hair. It is a very, very curious subject, and poetry, classic and not classic, is full of suggestions about it. Take a passage which occurs to me at once. It is from the speech of Comus when he first hears of the singing of the lady:—

". At every fall
Smoothing the raven down of darkness till it smiled."

Or take the repeated references which occur in the poets to the effect of beauty in "sleeking" or smoothing water. There is one in Bulwer Lytton's "Pilgrims of the Rhine," but I can only recollect it with a gap—

"The moon on the Latmos mountain
Her pining vigil keeps. . . .
And the crystalymph
Bewails the nymph
Whose beauty sleeked the streams."

"Bulwer all over!" says the reader—but that is not the point. It is a fact which any sensitive person may verify for himself that, under the influence of tender caresses, the skin does actually take on additional smoothness—accidental local roughnesses tending to disappear. Then, when we caress another we experience a strong desire to stroke the hair. In the case of men caressing women and children, this will be at once admitted, but it is so with men caressing men. I have read that Mendelssohn would sometimes turn to a dear friend, and, stroking his hair, say, softly, "Edouard," as if Edward had been a child.

In this connection the gesture of benediction, which is so far instructive that it suggests itself to most of us apart from all teaching or imitation, occurs to me. You may notice it in children who have incidentally to protect still younger children—I do not now refer to the stroking caress, but the real, genuine "imposition of hands."

Mr. Darwin could not, of course, overlook kissing. And he makes the following remarks:—

"We Europeans are so accustomed to kissing as a mark of affection that it might be thought to be innate in mankind; but this is not the case. Steele was mistaken when he said, 'Nature was its author, and it began with the first courtship.' Jemmy Button, the

Fuegian, told me that this practice was unknown in his land. It is equally unknown with the New Zealanders, Tahitians, Papuans, Australians, Somals of Africa, and the Esquimaux. But it is so far innate or natural that it apparently depends on pleasure from close contact with a beloved person; and it is replaced in various parts of the world by the rubbing of noses, as with the New Zealanders and Laplanders by the rubbing or patting of the arms," &c.

But how do the facts cited by Mr. Darwin prove that Steele was wrong? Here again we come upon the difficulty about the use of such words as "innate" and "natural." Kissing proper is only one of a group of expressive movements all closely related to each other; and among them is that of biting, considered as expressive of affection. Every fond mother knows what it is to want to eat her child, and many mothers and fathers, too, know what it is to bite, out of mere love. Animals do it; and though a late school of poets has been severely criticised for introducing biting or "munching" into their poetry as a natural and not extraordinary caress, the thing is no modern innovation. Such passages as—

". . . . Shoulders white,
Fit for Venus' pearly bite,"

have been quite common in all erotic poetry. Any one who sees how directly some of this makes, at first sight, for Mr. Darwin's thesis, is welcome to laugh at my candour and say, "Out of thine own mouth will I judge thee, thou maladroit penman." But things can wait.

This may be permitted to introduce a word or two concerning what Mr. Darwin has to say of the use he made of works of art in his investigations:—"I had hoped to derive much aid from the great masters in painting and sculpture, who are such close observers. Accordingly, I have looked at photographs and engravings of many well-known works, but, with a few exceptions, have not thus profited. The reason, no doubt, is, that in works of art, beauty is the chief object; and strongly contracted facial muscles destroy beauty. The story of the composition is generally told with wonderful force and truth by skilfully given accessories." Upon this it is surely not unimportant to remark that, although Mr. Darwin may not have found the study of pictures and statues very useful *for his purpose*, others might find them useful for theirs in taking some other view of the question. There is also nothing disrespectful in suggesting that a very special sensitiveness is necessary for the proper examination of works of art for any purpose relating to expression. And this easily connects itself with the idea Mr. Darwin's book certainly leaves upon my mind, that he has paid too little attention to the shadings-off of emotive expression. But this is only an observation of mine, not a complaint. Works of art would, I believe, be found very sug-

gestive, taken from this point of view, whatever might be the final thesis of the investigation.

And this naturally brings us to music. First let us take the following :—

“That animals utter musical notes is familiar to every one, as we may daily hear in the singing of birds. It is a more remarkable fact that an ape, one of the gibbous, produces an exact octave of musical sounds, ascending and descending the scale by half-tones ; so that this monkey alone of brute mammals may be said to sing. . . . It has lately been shown that some quadrupeds much lower in the scale than monkeys, namely rodents, are able to produce correct musical tones : see the account of a singing hesperomys, by the Rev. S. Lockwood, in the ‘American Naturalist,’ vol. v., December, 1871, p. 761.”

Is Mr. Darwin aware that it has been denied by musical authorities that there are any really melodic intervals in the song of birds?—a view which, however, I do not quote in order to maintain it.

The following is very interesting, chiefly because of the very vague language about *some sort of sympathy*, to which we find great naturalists reduced when they approach certain topics :—

“There are other actions which are commonly performed under certain circumstances, independently of habit, and which seem to be due to imitation or some sort of sympathy. Thus persons cutting anything with a pair of scissors may be seen to move their jaws simultaneously with the blades of the scissors. Children learning to write often twist about their tongues as their fingers move, in a ridiculous fashion. When a public singer suddenly becomes a little hoarse, many of those present may be heard, as I have been assured by a gentleman on whom I can rely, to clear their throats ; but here habit probably comes into play, as we clear our own throats under similar circumstance. I have also been told that at leaping-matches, as the performer makes his spring, many of the spectators, generally men and boys, move their feet ; but here again habit probably comes into play, for it is very doubtful whether women would thus act. Music often produces another peculiar effect. We know that every strong sensation, emotion, or excitement—extreme pain, rage, terror, joy, or the passion of love—all have a special tendency to cause the muscles to tremble ; and the thrill or slight shiver which runs down the backbone and limbs of many persons when they are powerfully affected by music seems to bear the same relation to the above trembling of the body as a slight suffusion of tears from the power of music does to weeping from any strong and real emotion.”

In the last story of “Lilliput Legends”—a story in which, to use the words of the author, certain pans-pipes “turn out,” in the hands of a certain musical maiden, “to be real pipes of Pan,” there are such

reiterated references to "tears all down the ribs," the "warm shiver," the propagation of the warm shiver by sympathy, as in the case of gaping, and the subject of "trembling" as one which very few people understand, that it is natural to suppose the author of those absurdities has thought about the subject. Perhaps he has. But Mr. Darwin has some still more specific sentences concerning music :—

"In considering the mode in which vocal utterances express emotion, we are naturally led to inquire into the cause of what is called 'expression' in music. Upon this point Mr. Litchfield, who has long attended to the subject of music, has been so kind as to give me the following remarks :—'The question, what is the essence of musical "expression" invokes a number of obscure points, which, so far as I am aware, are as yet unsolved enigmas. Up to a certain point, however, any law which is found to hold as to the expression of the emotions by simple sounds must apply to the more developed mode of expression in song, which may be taken as the primary type of all music. A great part of the emotional effect of a song depends on the character of the action by which the sounds are produced. In songs, for instance, which express great vehemence of passion, the effect often chiefly depends on the forcible utterance of some one or two characteristic passages which demand great exertion of vocal force ; and it will be frequently noticed that a song of this character fails of its proper effect when sung by a voice of sufficient power and range to give the characteristic passages without much exertion. This is, no doubt, the secret of the loss of effect so often produced by the transposition of a song from one key to another. The effect is thus seen to depend not merely on the actual sounds, but also in part on the nature of the action which produces the sounds. Indeed, it is obvious that whenever we feel the "expression" of a song to be due to its quickness or slowness of movement—to smoothness of flow, loudness of utterance, and so on—we are, in fact, interpreting the muscular actions which produce sound, in the same way in which we interpret muscular action generally. But this leaves unexplained the more subtle and more specific effect which we call the *musical* expression of the song—the delight given by its melody, or even by the separate sounds which make up the melody. This is an effect indefinable in language—one which, so far as I am aware, no one has been able to analyse, and which the ingenious speculation of Mr. Herbert Spencer as to the origin of music leaves quite unexplained. For it is certain that the *melodic* effect of a series of sounds does not depend in the least on their loudness or softness, or on their *absolute* pitch. A tune is always the same tune, whether it is sung loudly or softly, by a man or a child ; whether it is played on a flute or on a trombone. The purely musical effect of any sound depends on its place in what is technically called a "scale ;" the same

sound producing absolutely different effects on the ear, according as it is heard in connection with one or another series of sounds.'

"It is on this *relative* association of the sounds that all the essentially characteristic effects which are summed up in the phrase 'musical expression' depend. But why certain associations of sounds have such-and-such effects is a problem which yet remains to be solved."

It is rather curious that a good many years ago the writer of these lines had incidentally to take up the very topic started by Mr. Litchfield, and then printed the following paragraph:—

"Archbishop Whately, speaking of what he calls "totality (or eusynopticity)" of mind, says, 'it enables its possessor (among other advantages) to acquire and retain things which can be formed into a system, and, as it were, tied into a bunch.' So far good. It is of the elucidating comparison that I complain. 'In this respect, it (totality) is like an ear for music (which indeed in its own way may be called a species thereof), for I do not know that those who have an ear retain single sounds better than others; but they are enabled to retain a vast number, by means of their mutual relation in a tune. That their remembrance of a tune is not the collective remembrance of the individual notes, but of their mutual relation, is quite evident from this—that if they begin any tune in a higher or lower note than they heard it, they will go all through the same, and thus bring out notes which it is conceivable they never heard in their lives.'

"Is there anything *peculiar* in this 'totality' of the musical faculty, which makes it especially eligible for comparison? Is not the combining power the manifestation of the higher exercises of *every* faculty of the human mind (whatever one's metaphysics), as you ascend from simple perception? Is the *x* of the gamut—the object of the musical faculty—more definable than the *x* of the numeration table—the object of the arithmetical faculty? Is it *any more* a matter of 'relation'? I cannot see it. And I should say precisely the same of the faculty of 'casualty,' or of 'comparison.' I apprehend—appealing both to my own consciousness and observation—that it is an error to suppose that musical people do not perceive in single sounds qualities which unmusical people do not. A million men would receive a million different impressions through the ear of the same note of a bell, and each one would remember it differently. A single sound may be musical or unmusical, as we all know. The statement that music depends upon the relations of sounds amounts, I think, to nothing but a truism. Upon what relations? Not upon those of time or succession, for—not to refer to the nations whose music was almost wholly rhythmical, and would not be recognised under that name by us—we all know persons who have the keenest ear for the 'music' of music, and almost *no* perception of *time* or *rhythm*.

The statement, then, comes to this—music lies in the musical relations of sounds! Would not the accurate statement be, Music lies in the musical *quality* of sounds (*i.e.*, in the x which is the object of a certain perception), and a musical composition is a combination of musical sounds, resulting from the musical faculty, joined to other faculties, in a high degree of activity? A musical composition includes—I. Tune. II. Time. III. Rhythm, accent, or momentum. Let me be understood. I do not deny that the exercise of “totality” is like that of “a good ear”—only, that it is more like that than like the exercise of any other good natural gift—the arithmetician’s, the painter’s, the mechanist’s. Combination is the flower and crown of every faculty; but its fundamental action is an ultimate fact not admitting of any such definition as the passage from Whately seems to imply for music.”

This was written in haste for a periodical, and it is not as well put as it might be—but I still adhere to it. In other words, I think the question is discussed at a gratuitous disadvantage if we treat the case of Music as one by itself.

Lastly, I cannot omit, as an act of justice, calling attention to the general principles of pathognomy laid down by Spurzheim. His purpose was physiognomical; but the reader of Mr. Darwin’s book will be struck with the correspondences between these “principles” and those brought out by the great living naturalist, when the objects are not physiognomical. Spurzheim’s general principles are as follows:—

“1. As soon as any faculty of the mind is active, all the bodily parts which contribute to the performance of the respective function enter into action.

2. All motions and all activity of the auxiliary parts are adapted to the performance of the function.

3. Though the activity of only one part be necessary to any function, yet all other similar parts enter into action.

4. If any internal faculty be active, and somewhat energetic, though no function is produced, yet the external expressions take place conformably.

5. All external expressions are concordant over the whole body.

6. The external expressions are stronger or weaker according to the activity of the faculties; and they are modified in different nations, individuals, temperaments, and ages; but the essential is everywhere the same.

7. The motions and attitude of the body are modified according to the seats of the organs.

8. External expressions are either transitory or permanent.

9. Pathognomy may be studied in respect to truth, or in respect to gracefulness.

10. Finally, pathognomy is to be distinguished from pantomime.”

Note especially Number 4, for comparison with many passages in Mr. Darwin's book.

I beg the reader to receive these notes as what they are—the very first result of a first, and necessarily hasty, reading of Mr. Darwin's book. It is not to that, however, but to a settled purpose of abstinence (for the present) that he must attribute my utter silence as to the main thesis in the light of which Mr. Darwin's book is written. But the subject of the Natural Language of Emotion is one which, according to promise, will be incidentally taken up from time to time in these papers, and I shall hardly be able to escape turning to Mr. Darwin's book again and again. As the comments of differing persons constitute in all such discussions a portion of the evidence, I should add that I have carefully abstained from reading any reviews or notices of the work before us.

On looking over these rough notes, I find one or two things which I had marked for immediate notice have been left out. The first is what Mr. Darwin says of a certain gesture expressive of surprise or astonishment :—

“There is another little gesture, expressive of astonishment, of which I can offer no explanation; namely, the hand being placed over the mouth or on some part of the head. This has been observed with so many races of man, that it must have some natural origin. A wild Australian was taken into a large room full of official papers, which surprised him greatly, and he cried out, *cluck, cluck, cluck*, putting the back of his hand towards his lips. Mrs. Barber says that the Kafirs and Fingoes express astonishment by a serious look, and by placing the right hand upon the mouth, uttering the word *mawo*, which means ‘wonderful.’ The Bushmen are said to put their hands to their necks, bending their heads backwards. Mr. Winwood Reade has observed that the negroes on the West Coast of Africa, when surprised, clap their hands to their mouths, saying at the same time, ‘My mouth cleaves to me,’ *i.e.*, to my hands; and he has heard that this is their usual gesture on such occasions. Captain Speedy informs me that the Abyssinians place their right hand to the forehead, with the palm outside. Lastly, Mr. Washington Matthews states that the conventional sign of astonishment with the wild tribes of the western parts of the United States ‘is made by placing the half-closed hand over the mouth; in doing this the head is often bent forwards, and words or low groans are sometimes uttered.’ Catlin makes the same remark about the hand being pressed over the mouth by the Mandans and other Indian tribes.”

In the Bible, covering the mouth with the hand is very often referred to, but usually I think the gesture there means that the person will not presume to speak; and it is associated with awe or terror. But surprise and awe are kindred feelings; and two at least of the passages in question are worth quoting :—Job xxi. ver. 5, “Mark me,

and be astonished, and lay your hand upon your mouth." Micah vii. ver. 16, "The nations shall see and be confounded . . . they shall lay their hand upon their mouth."

But the very first thing which struck me when I read the paragraph in Mr. Darwin's volume was this:—The gesture is somewhat similar to that of putting the hand to the mouth or rubbing the chin when startled or "taken aback." The gesture may I think be seen in Wilkie's "Village Politicians," and in one of two draught-players in another picture. At all events, it is a familiar gesture; and probably many a reader does just what I often do when taken aback—puts his hand suddenly to his mouth, while the blood rushes into his head. The clasping of the head with one or both hands under any strong shock is common—as if to quell a sense of throbbing or splitting.

Upon the subject of the transmission of habits, I can mention a fact as curious as many of those which are familiar to students of such matters. A highly nervous gentleman, who had been a great writer of shorthand all his life, had a habit of sometimes writing it in the air with his index-finger. This habit was transmitted to one of his children, who, at a very early age, made, when excited, shorthand-writing movements in the air of the same kind as his father's. The effect was so supremely, so unutterably ludicrous, that he was fairly laughed out of it, but the habit was what must be called a fixed one. It ought to be added that, from circumstances of age, &c., &c., it was clear the habit was not due to imitation.

Under the word *Admiration*, Mr. Darwin begins thus, "Little need be said on this head," and his remarks only occupy seven lines! This is just one of the topics which ought to be found a fertile one—though it would not obviously lend itself to the final thesis of Mr. Darwin.

I find I have omitted to refer to various minor gestures of rubbing or clasping the hands, *e.g.*,—

". . . In the fulness of joy and hope,
Rubbing the hands with invisible soap
In imperceptible water,"—

—which were to have been mentioned in connection with the *dare manus* gesture. But another time will do.

HENRY HOLBEACH.