DARWIN ON HIS TRAVELS.*

THE voyage described in this book of Mr. Darwin's was made in 1831-6, and the narrative of it published in 1845; a few errors were corrected in a note to the edition of 1860. The great interest excited by the author's late works has induced the Messrs. Appleton to issue a second American edition, uniform in style with their recent editions of Darwin, Mivart and Tyndall's books on the scientific questions of the day. This book has a permanent value, not only as the production of what Mr. Carlyle calls "a credible person with eyes," but as the result of the study of wide and various fields of natural science by one of the ablest savans and keenest observers of our century. It is not often that our very great scientific men go a-travelling-Humboldt, Lyell, Agassiz and some other exceptions to the contrary notwithstanding. They are generally content to take foreign countries at second-hand, accepting the facts gleaned by those who have more time for such expeditions. And yet only thoroughly scientific men are first-class observers. To their eyes a thousand signs are instructive, where an untrained eye sees nothing; to their ears many things are eloquent, where other men would hear nothing. Especially is this the case with Mr. Darwin, whose beetling eyebrows indicate strongly developed observative faculties, forming the most notable features in a striking face. His many enemies assert the fact with exultation, declaring that "his powers of reasoning are in an inverse ratio to his powers of observation."

The book is one of the fullest of its kind—a whole encyclopedia of facts. We shall not, therefore, attempt the impossible task of sketching its contents, but only consider the bearing of a few of its statements on the author's later theories. Mr. Darwin's name is inseparably associated with the theory of the slow and gradual evolution of mankind, under the impulses and reactions of material necessities. It might be therefore supposed that he would look upon that slow and gradual education as the single method of human progress, and that he would look with distrust

* Journal of Researches into the Natural History and Geology of the Countries Visited during the Voyage of H. M. S. Beagle Round the World. By Charles Darwin, M. A., F. R. S. New edition. Pp. 519. New York: D. Appleton & Co. upon such attempts as are making by Christian missionaries and other civilizers to accomplish the same results by shorter methods. But any one who opens the book with this expectation will be surprised at the respectful tone in which the missionaries and their work is defended—a tone very different from that of such travellers as Read and Burton. This seems to be just because Mr. Darwin could not help seeing things as they were and reporting them as he saw them. This it is that keeps him free from one of the worst *idola tribus* of scientific anthropologists.* Writing of his exploring trips in the island of Tahiti, he says, p. 411:

From our position, almost suspended on the mountain-side, there were glimpses into the depths of the neighboring valleys... Thus seated it was a sublime spectacle to watch the shades of night gradually obscuring the last and highest pinnacles. Before we lay down to sleep, the elder Tahitian fell on his knees, and with closed eyes repeated a long prayer in his native tongue. He prayed as a Christian should do, with fitting reverence, and without the fear of ridicule, or any ostentation of piety. At our meals neither of the men would taste food without saying beforehand a short grace. Those travellers who think that a Tahitian prays only when the eyes of the missionary are fixed on him, should have slept with us that night on the mountain side. . . .

Unwittingly, I was the means of my companions breaking, as I afterwards learned, one of their own laws and resolutions: I

* The Anthropological Society of London has been especially offensive in this direction-Messrs. Read and Burton declaring that missions to Africa are failures, and that their only result was to transform the males [from what?] into thieves and liars, and the females into prostitutes; that there is something in the negro nature repulsive to Christianity, which they regarded not as a universal but a race religion. On the other hand even The Saturday Review speaks of "the silly, popular platitude that missions to the heathen are useless, and that wise men would confine themselves to our own heathen at home. It is strange that, if a man goes merely to hunt, or to make geographical discoveries, he is loudly applauded by the very people who speak slightingly of missionaries. To bring home hundreds of tusks, and teeth, and skins, or to show where a river rises and what is the altitude of a mountain-range, is thought a noble achievement; but to have crossed the plains where the elephants range, and to have ascended those unknown heights in order to give the greatest of blessings to the men who live there, is thought Quixotic and derogatory to the wisdom of civilized man. The real facts are just the other way."

[Nov.. took with me a flask of spirits, which they could not refuse to partake of; but as often as they drank a little, they put their fingers before their mouths, and uttered the word "missionary." About two years ago, although the use of the ava was prevented, drunkenness from the introduction of spirits became very prevalent. The missionaries prevailed on a few good men, who saw that their country was rapidly going to ruin, to join with them

in a temperance society. From good sense or shame, all the chiefs and the queen were at last persuaded to join. Immediately a law was passed, that no spirits should be allowed to be introduced into the island, and that he who sold and he who bought the forbidden article should be punished by a fine. With remarkable justice, a certain period was allowed for stock in hand to be sold before the law came into effect. But when it did, a general search was made, in which even the houses of the missionaries were not exempted, and all the ava (as the natives call all ardent spirits) was poured on the ground. When one reflects on the effect of intemperance on the aborigines of the two Americas, I think it will be acknowledged that every well-wisher of Tahiti owes no common debt of gratitude to the missionaries. As long as the little island of St. Helena remained under the government of the East India Company, spirits, owing to the great injury they had produced, were not allowed to be imported; but wine was supplied from the Cape of Good Hope. It is rather a striking and not very gratifying fact, that in the same year that spirits were allowed to be sold in St. Helena, their use was banished from Tahiti by the free will of the people.

From the varying accounts which I had read before reaching these islands, I was very anxious to form, from my own observation, a judgment of their moral state, although such judgment would necessarily be very imperfect. First impressions at all times very much depend on one's previously acquired ideas. My notions were drawn from Ellis's "Polynesian Researches"-an admirable and most interesting work, but naturally looking at every thing under a favorable point of view; from Beechey's "Voyage;" and from that of Kotzebue, which is strongly adverse to the whole missionary system. He who compares these three accounts will, I think, form a tolerably accurate conception of the present state of Tahiti.

One of my impressions, which I took from the last two authorities, was decidedly incorrect, viz., that the Tahitians had become a gloomy race, and lived in fear of the missionaries. Of the latter feeling I saw no trace, unless, indeed, fear and respect be confounded under one name. Instead of discontent being a common feeling, it would be difficult in Europe to pick out of a crowd half so many merry and happy faces. The prohibition of the flute and dancing is inveighed against as wrong and foolish; the more than Presbyterian manner of keeping the Sabbath is looked at in

a similar light. On these points I will not pretend to offer any opinion in opposition to men who have resided as many years as I was days on the island.

On the whole, it appears to me that the morality and religion of the inhabitants are highly creditable. There are many who attack, even more acrimoniously than Kotzebue, both the missionaries, their system, and the effects produced by it. Such reasoners never compare the present state with that of the island only twenty years ago; nor even with that of Europe at this day; but they compare it with the high standard of gospel perfection. They expect the missionaries to effect that which the Apostles themselves failed to do. Inasmuch as the condition of the people falls short of this high standard, blame is attached to the missionary, instead of credit for that which he has effected. Thev forget, or will not remember, that human sacrifices and the power of an idolatrous priesthood—a system of profligacy unparalleled in any other part of the world-infanticide, a consequence of that system of bloody wars, where the conquerors spared neither women nor children-that these have been abolished; and that dishonesty, intemperance and licentiousness have been greatly reduced by the introduction of Christianity. In a voyager to forget these things is base ingratitude; for should he chance to be at the point of shipwreck on some unknown coast, he will most devoutly pray that the lessons of the missionary may have ex-tended thus far.

Of the home of Missionary Williams, at Waimate, in New Zealand, he writes:

After having passed over so many miles of an uninhabited useless country, the sudden appearance of an English farm house, and its well-dressed fields, placed there as if by an enchanter's wand, was exceedingly pleasant. . . . At Waimate there are three large houses, where the missionary gentlemen Messrs. Wil-liams, Davies and Clarke reside; and near them are the huts of the native laborers. On an adjoining slope, fine crops of barley and wheat were standing in full ear; and in another part, fields of potatoes and clover. But I cannot attempt to describe all I saw; there were large gardens, with every fruit and vegetable which England produces, and many belonging to a warmer clime. I may instance asparagus, kidney beans, cucumbers, rhubarb, apples, pcars, figs, peaches, apricots, grapes, olives, gooseberries, currants, hops, gorse for fences, and English oaks; also many kinds of flowers. Around the farm-yard there were stables, a thrashing-barn with its winnowing machine, a blacksmith's forge. and on the ground plowshares and other tools. In the middle was that happy mixture of pigs and poultry, lying comfortably together, as in every English farm-yard. At the distance of a few hundred yards, where the water of a little rill had been

dammed up into a pool, there was a large and substantial watermill.

All this is very surprising when it is considered that five years ago nothing but the fern flourished here. Moreover, native workmanship, taught by the missionaries, has effected this change. The lesson of the missionary is the enchanter's wand. The house had been built, the windows framed, the fields plowed, and even the trees grafted, by the New Zealander. At the mill, a New Zealander was seen powdered white with flour, like his brother miller in England. When I looked at this whole scene I thought it admirable. It was not merely that England was brought vividly before my mind; yet, as the evening drew to a close, the domestic sounds, the fields of corn, the distant undulating country with its trees might well have been mistaken for our fatherland; nor was it the triumphant feeling at seeing what Englishmen could effect; but rather the high hopes thus inspired for the future progress of this fine island.

Several young men, redeemed by the missionaries from slavery, were employed on the farm. They were dressed in a shirt, jacket and trousers, and had a respectable appearance. Judging from one trifling anecdote, I should think they must be honest. When walking in the fields, a young laborer came up to Mr. Davies, and gave him a knife and gimlet, saying that he had found them on the road, and did not know to whom they belonged! These young men and boys appeared very merry and good-humored. In the evening I saw a party of them at cricket. When I thought of the austerity of which the missionaries have been accused, I was amused by observing one of their own sons taking an active part in the game. A more decided and pleasing change was manifested in the young women, who acted as servants within the houses. Their clean, tidy and healthy appearance, like that of dairy-maids in England, formed a wonderful contrast with the women of the filthy hovels in Kororadika. The wives of the missionaries tried to persuade them not to be tattooed; but a famous operator having arrived from the south, they said : "We really must just have a few lines on our lips, else when we grow old, our lips will shrivel, and we shall be so very ugly." There is not nearly so much tattooing as formerly; but as it is a badge of distinction between the chief and the slave, it will probably long be practised. So soon does any train of ideas become habitual, that the missionaries told me that even in their eyes a plain face looked mean, and not like that of a New Zealand gentleman.

Late in the evening I went to Mr. Williams's house, where I passed the night. I found there a large party of children, collected together for Christmas-day, and all sitting round a table at tea. I never saw a nicer or more merry group; and to think that this was in the centre of the land of cannibalism, murder,

and all atrocious crimes! The cordiality and happiness so plainly pictured in the faces of the little circle appeared equally felt by the older persons of the mission.

What we have quoted from Mr. Darwin's book should be a sufficient answer to those who regard him as actuated by some irreligious feeling in his investigation—as a sort of scientific Tom Paine. He compliments Christianity but poorly who reckons among its enemies one who is so earnestly and thoroughly devoted to learning facts as they are, and who therefore regards the actual results of Christian truth with so much of real respect. It is, however, to be regretted that when religious people have taken up this subject, they have too generally dealt in rhetoric, contempt and denunciation, instead of hard logic. Of the latter there can never be too much, of the former never too little, where the facts and laws of physical science are in question.

Theology has suffered more than science in consequence. То say nothing of losing its hold upon the minds of men, this method has helped to cast discredit upon the very documents upon which it professes to be based. Great numbers in the church quietly avow their disbelief in the scientific statements of the Bible, while many of the most emphatic affirmations of belief in them borrow half their emphasis from the secret doubt that gnaws like the worm at the root of Jonah's gourd. Had not the theological opposition to scientific theories of development associated in men's minds the Mosaic records with obscurantism and prejudice, the Mosaic narrative of creation would doubtless have been seen in its true character-as a most wonderful anticipation (by what ever means) of our modern scientific conceptions. The document mediates between the conceptions of the East and of the West. To the Oriental mind emanation is the most natural theory in accounting for the origin of the universe. All things flowed forth in completeness from the essence and life of the divinity. The Occidental mind naturally conceives of the world as made or developed. Plato-the great reconciler of Asia and Europe*-struck out a middle theory: all things were created according to ideas of them which preëxisted in the mind of God. Moses anticipates even Plato: while other things were made "after their kind," a model which existed in the thought of the Creator, man was made in the very image and likeness of God.

1871.]

^{*} See Emerson's chapter on Plato, in his Representative Men.

But even Plato did not anticipate, as Moses did, the scientific doctrine of continuity. Genesis gives us the first great outline of modern classification, ranging the great orders of inanimate and animate existence in the very systematic form which the theories of geology and of development show to be correct and necessary. We fail to see how striking and wonderful this is, through being accustomed to take the conception as something of course. But if any other of the documents of ancient literature be compared with the first chapter of Genesis, the wonderful character of this anticipation will be understood.

Again, the theory of mediate creation is one which some theologians regard as especially objectionable. Yet Moses is responsible for that also. He indeed assumes-what science can never reach back to-that the beginning of creation was a bringing out of nothing. But in tracing the later parts of the process, he describes it as a mediate one. Even man himself is described as made-not out of nothing, but-out of the dust of the earth. If any one chooses to supply a possible hiatus in that statement and to trace the process-still repeated in the embryotic life of man-by which he passed through all the lower forms of animated life, he surely cannot be denounced as contradicting Moses, nor even with introducing new conceptions into the doctrine of creation. Nor can such anthropologists be fairly charged (at least by those who believe Moses) with a wilful degradation of their species, since even "the gibbering ape" is a higher form of existence than a lump of dust or clay.

Another coincidence between modern science and the Mosaic narrative is in the statement that light existed before the sun and moon. The author or authors of the Zendavesta, in copying this narrative of creation, noticed the apparent inconsistency, and took care to change it, so that the sun and other heavenly bodies were on the scene at once to give light. Voltaire and other sceptics of last century made this an especial objection to the Mosaic narrative, but modern science shows it involves no absurdity that light is not dependent upon the sun, that it is so correlated to heat and motion that we may well suppose it to have been the result of the rapid movement of large masses of matter in the organization of our system. The nebular hypothesis especially necessitates the supposition that light and heat existed throughout the system long before the present source of both had taken its limited position in the centre.

Let us not be construed as asserting that the faults have all been on one side in this antagonism of theology and science. Far from it. Theology in every form is based upon conceptions of which purely natural science can take no cognizance, and scientific men have too often stepped out of their own sphere to repudiate or deny them. Science knows nothing of an absolute beginning, while theology is forced to hold fast to that conception. If it holds to any kind of theism, it must maintain an absolute beginning in creation-that God made all things out of nothing. If it holds to any theory of human redemption, then it declares that a force above any of the natural forces has been born into the world. If it holds to any doctrine of regeneration, it teaches that a man who has been in a fallen state be raised out of it by a power that is greater than himself, and that gives him a new moral start. In vindication of these conceptions, it points to facts such as Mr. Darwin has here alleged, which can only be explained on the theological hypothesis. The essential difference of these ideas from those that characterize science need hardly be dwelt upon. The man whose mind has been devoted to the study of nature, until all his thinking takes the shape of cause and effect, is too apt to assume that there is nothing beyond that sphere, is too apt to speak with contemptuous indifference of conceptions that are not scientific. It is best that each branch of knowledge should stand on its own ground in relations of mutual recognition and friendship.

But Mr. Darwin's book has a still more direct bearing upon his later theories and writings. It seems, by its pictures of savage life, to somewhat confirm a theory of man's development very different from his own. Other investigators in the field of anthropology think that they discover traces of two great but opposite processes which have acted on the human race in different localities—development and degradation. They say, granting the development of man from the lower orders of animals, is there not evidence enough that a large part of the race has sunk below what man was at this beginning, while the rest have risen —a little or much—above that? The animals themselves are not as degraded in moral standing as many tribes of savages. That memory which binds man into a moral unit, and makes him a

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responsible person, is far stronger in a dog than in an Australian black. No animal exhibits near so little respect for the sacred relations of kinship as do the Africans of Guinea and other regions, who sell their own children for gain. To speak of these specimens of the *genus homo* as a moral advance upon the animal kingdom, is to pervert words. Mr. Darwin gives us even more striking instances of this degradation to a lower than animal level. Describing the meeting between some natives of Terra del Fuego whom the *Beagle* had brought back from England, and their long-lost kinsmen, he says:

Jemmy's mother and brothers arrived. Jemmy recognized the stentorian voice of one of his brothers at a prodigious distance. The meeting was less interesting than that between a horse, turned out into a field, and an old companion. There was no demonstration of affection; they simply stared for a short time at each other; and the mother immediately went to look after her canoe.

Still more significant is another fact alleged in regard to the same people:

The different tribes when at war are cannibals. From the concurrent but quite independent evidence of the boy taken by Mr. Low, and of Jemmy Button, it is certainly true that when pressed in winter by hunger, they kill and devour their old women before they kill their dogs. The boy being asked by Mr. Low why they did this, answered: "Doggies catch otters, old women no." This boy described the manner in which they are killed, by being held over smoke and thus choked; he imitated their screams as a joke, and described the parts of their bodies which are considered best to eat. Horrid as such a death by the hands of their friends and relatives must be, the fears of the old women, when hunger begins to press, are more painful to think of. We were told that they then often run away into the mountains, but that they are pursued by the men and brought back to the slaughter-house at their own firesides !

In Australia Mr. Darwin met with a race of savages some grades above the Fuegians, but even here the fact of degradation was evinced by the diminished vitality of the stock. They perish by contact with people of civilized races, even without the additional agencies of rum and war. They catch the white man's diseases even from healthy persons, and lacking the *stamina vitæ* to resist them, die in multitudes—a fact which can only be explained as a merciful provision of nature to clear our earth of peoples who have fallen out of the line of man's development, by simple contact with those that are in line. Writing of the agency of war and rum in New South Wales, he says:

The Rev. J. Williams says that the first intercourse between natives and Europeans "is invariably attended with the introduction of fever, dysentery, or some other disease which carries off numbers of the people." Again, he affirms: "It is certainly a fact which cannot be controverted, that most of the diseases which have raged in the islands during my residence there have been introduced by ships;* and what renders this fact remarkable is, that there might be no appearance of disease among the crew of the ship which conveyed this destructive importation." This statement is not quite so extraordinary as it at first appears: for several cases are on record of the most malignant fevers having broken out, although the parties themselves, who were the cause, were not affected. In the early part of the reign of George III, a prisoner who had been confined in a dungeon was taken in a coach with four constables before a magistrate; and, although the man himself was not ill, the four constables died from a short putrid fever; but the contagion extended to no others. From these facts it would almost appear as if the effluvium of one set of men shut up for some time together was

* Captain Beechey (chap. iv., vol. i.) states that the inhabitants of Pitcairn Island are firmly convinced that after the arrival of every ship they suffer cutaneous and other disorders. Captain Beechey attributes this to the change of diet during the time of the visit. Dr. Macculloch (Western Isles, vol. ii., p. 32) says, "It is asserted that on the arrival of a stranger (at St. Kilda) all the inhabitants, in the common phraseology, catch a cold." Dr. Macculloch considers the whole case, although often previously affirmed, as ludicrous. He adds, however, that "the question was put by us to the inhabitants, who unanimously agreed in the story." In Vancouver's Voyage, there is a somewhat similar statement with respect to Otaheite. Dr. Dieffenbach, in a note to his translation of this Journal, states that the same fact is universally believed by the inhabitants of the Chatham Islands, and in parts of New Zealand. It is impossible that such a belief should have become universal in the northern hemisphere, at the Antipodes, and in the Pacific, without some good foundation. Humboldt (Polit. Essay on King. of New Spain, vol. iv.) says that the great epidemics at Panama and Callao are "marked" by the arrival of ships from Chile, because the people from that temperate region first experience the fatal effects of the torrid zones. I may add that I have heard it stated in Shropshire, that sheep which have been imported from vessels, although themselves in a healthy condition, if placed in the same fold with others, frequently produce sickness in the flock.

[So the cattle disease was introduced in our Northern States by healthy cattle from Texas. These never themselves presented any indication or symptom of the disease, but as soon as they crossed a certain parallel of latitude (and not before) they spread infection among the cattle of the country through which they were driven.—EDS.] poisonous when inhaled by others; and possibly more so, if the men be of different races. Mysterious as this circumstance appears to be, it is not more surprising than that the body of one's fellow-creature, directly after death, and before putrefaction has commenced, should often be of so deleterious a quality, that the mere puncture from an instrument used in its dissection should prove fatal.

In view of these facts, and unless we adopt the theory that Baal is ruler of the earth, can we avoid seeing that the present status of the earth's population is the result of two opposite processes and not of one—that degradation as well as development from some primitive type has been going on for ages past? That type the anthropologist must find for himself. If he accepts the aid of the philologist, he will probably be pointed to China, whose language is the simplest and least organic of all human tongues. The metaphysician confirms the opinion by showing that the Chinese intellect stands in closest analogy to the lowest orders of animal life, being actuated solely from without and by external motives, no man being "a law unto himself" or possessed of a free subjectivity.

ROBERT ELLIS THOMPSON.

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