

## LITERARY.

## MR DARWIN'S DESCENT OF MAN.

*The Descent of Man, and Selection in relation to Sex.* By Charles Darwin, M.A., F.R.S., &c. In Two Volumes. Murray.

The positive or scientific mode of thought has within the present generation received a great impulse from three works. The first and most widely influential was Mr Mill's 'Logic,' which, it is hardly too much to say, restored the science of reasoning from scholastic triflers, and restored it to the Baconian ideal as a subordinate aid in the advance of human knowledge. The second was Mr Maine's 'Ancient Law,' which impressed on all who read it a profound sense of the value of the historical method of studying questions regarding the nature and condition of man. The third was Mr Darwin's 'Origin of Species,' which substituted in natural history the profound conception of evolution for a mere catalogue or enumeration of species held together by a slender metaphysical or theological fiction. This was followed up by a detailed application to the fertilization of orchids, and the case of animals and plants under domestication. It was of course obvious from the beginning that the principle of natural selection could not be restricted to the lower animals, and Mr Darwin has now, in the volume before us, examined the arguments against the extension of his theory to "the paragon of animals." The conclusion at which he arrives is not agreeable to the "natural man;" it offends, or seems to offend, that sense of dignity which reserves the lowest sources from mere animalism, and which ever remains the most precious safeguard of virtue. No objection is felt to the degradation of men into animals, but the reverse operation is bitterly resented. In the *Timonee*, Plato tells us that men who were guilty of cowardice and injustice were, after death, turned into women; barbares but superficial men were changed into birds; those who in their lifetime made gods of their beliefs passed into the more brutal herd animals; the stupid man became a fish. Such is the teaching of imagination prompted by vanity; science holds forth a different but not less elevating conception.

To believe that man was originally confined, and then suffered after degradation in so many regions, is to take a pitifully low view of human nature. It is apparently a true and more cheerful view that progress has been much more general than retrogression; that man has risen, though by slow and interrupted steps, from a lowly condition to the highest standard as yet attained by him in knowledge, morals, and religion.

Every attempt that has been made to discover in the bodily structure of man any impassable barrier separating him from other animals has utterly failed. The scientific world has not forgotten the sharp contrast about the *Hippocampus minor*; but it is admitted, even by hostile witnesses, that "every chief fissure and fold in the brain of man has its analogy in that of the orang." The human embryo is distinguishable from the young ape only in the later stages of its growth. The points of resemblance between man and other animals are numerous; but there is one class of cases singularly instructive, namely, the presence of useless, rudimentary organs, the representatives of which are found in useful activity in other animals. No one can doubt that the rudimentary legs of snails, which are of no use to them, indicate their descent from animals by whom these extremities were employed in locomotion. The ears of most animals are mobile, but those of man are fixed, as is also the case with the chimpanzee and orang. But a more striking peculiarity in the ear of man has been pointed out by the celebrated sculptor, Mr Woolner. He observed in the ears of various monkeys and men a little blunt point, projecting from the inwardly-folded margin of the external ear. According to Mr Darwin, this is a vestige of pointed ears, when the point has been taken inwards. The intermediate stage is actually observed in *Ateles belzebuth*. Slight anatomical facts like these are often more useful in classification than broad outstanding differences. "In man the frontal bone consists of a single piece; but in the embryo and in children, and in almost all the lower mammals, it consists of two pieces separated by a distinct suture." Occasionally, in the adult, the separation is kept up, and, what is strangely inexplicable if we reject evolu-

tion, more commonly in the crania of extinct races. A large collection of similar facts is given by Mr Darwin, showing, much as we may resent the suggestion, that the higher animals are "bone of our bone, and flesh of our flesh."

One of the least agreeable marks of our similarity in physical structure to the animals is our subjection to the law of population. If thirty millions were to increase at the rate attained in the United States, namely, doubling in twenty-five years, they would in 457 years cover the globe to such an extent that four men would have to stand on each square yard of surface. Although it is probable that barbarous races are less productive than the civilized races, yet they increase far more rapidly than they find desirable. The hill-tribes of India have recently, since their intermediate wastes has been put down and vaccination introduced, increased to an extraordinary extent. Among savages, the principal mode of checking the excess of births is infanticide. It formerly prevailed nearly all over the world. Even the "divine Plato" did not see anything improper in resorting to it as a means of getting rid of children who might be expected to grow into weaklings. Low as the state of society is in which infanticide is a normal mode of relief, it is infinitely superior to the condition of the lower animals, who allow the useless mouths to grow up, afterwards to perish. It is a step in the growth of self-control, and leads to the more humane practice of solitary in a more advanced social stage.

It may be said, however, that it is "mind that makes the man," and that, notwithstanding his external similitude to the brutes that perish, man is "only a little lower than the angels," and therefore to be placed in a totally different category from the rest of the animal kingdom. This objection Mr Darwin has examined in two chapters of the greatest interest, because he approaches the subject not with any a priori, dogmatic conclusion, but with the experience and knowledge of a profound naturalist anxious merely to ascertain the truth. The popular notions of the distinction between man and the lower animals is expressed by the antithesis of reason and instinct. Although it is true that man has fewer instincts than the animals, the difference is one of degree, and not of kind. Many things are attributed to instinct which may be the result of experience. Monkeys avoid the poisonous fruits of the tropics, but our domestic animals often eat poisonous herbs till they learn from their pernicious effects to avoid them. On some farms there are peculiar poisonous herbs that are fatal to most cattle freshly introduced into the farm, so that the stock has to be kept up by breeding from those that have learned to avoid the dangerous herbs. Mr Darwin well observes: "It is a significant fact that the more the habits of any particular animal are studied by a naturalist, the more he attributes to reason and the less to inherent instincts." All the common emotions are shared by animals as well as men. A dog shows jealousy of his master's affection; it loves praise and even feels shame. It is stated that monkeys dilate being laughed at. Mr Darwin mentions a curious fact:

In the Ecological Gardens I saw a baboon who always get into a furious rage when his legs were touched on a knee or foot, and read it aloud to him; and his rage was so violent that, as I witnessed on one occasion, he bit his own leg till the blood flowed.

That animals can reason, and can invent original devices, is evident to any one who has watched their habits. An example given by Mr Darwin illustrates this:

Mr Colquhoun winged two wild ducks, which fell on the opposite side of a stream; his retriever tried to bring over both at once, but could not succeed; she then, though never before known to ruffle a feather, deliberately killed one, brought over the other, and returned for the dead bird.

There are few who could not give similar instances. In one case, where a ball was accidentally thrown into a pond, a little Scotch terrier was sent in by its master to fetch it out. The ball was rather large, and after many trials the dog failed to take the ball in its mouth, and was returning without it. On being sent back it deliberated, and then began to push the ball before it in the water, and thus took it to land. Such a stroke of invention differs in nothing but degree from the great feats of human ingenuity; and it is not saying too much that, if allowance be made

for the vast superiority of the mental power of man, there are not many human beings capable of distinguishing themselves more than the little beetle.

Various other criteria have been proposed to establish a line of demarcation, such as that man is the only progressive animal, or that he alone possesses language, or has self-consciousness, or a sense of beauty, or any religion; but these alleged peculiarities (except the last-mentioned) are all found, in some degree, in the lower animals, and the last, besides being dependent on other faculties, is not shared by all men. Mr Darwin says:

We could never discover that the Funguses believed in what we should call a God, or practised any religious rites; and James Hutton (a Fungus on board the *Beagle*), with justifiable pride, never mentioned that there was no devil in his land.

The distinction most relied on is conscience. Animals do not discriminate between right and wrong; they exhibit prudence, and may be acted on by fear, but they have no moral sense. To those who believe that conscience is a unique faculty, the difficulty must, no doubt, be considerable of imagining by what steps it could have been developed. Rather it must have come all at once, *neo tote*, as a divine inspiration, and could not have been elaborated, since it is itself elementary and incapable of being analysed or resolved into simpler components. At this point, therefore, a naturalist, who accepts the theory of evolution, is compelled to leave, for a time, the concrete, visible facts with which he is accustomed to deal, and follow the metaphysical method through all the mazes of ethical controversy. Mr Darwin's discussion of this thorny question indicates, as might have been expected, a greater leaning towards Mr Herbert Spencer than to Mr Mill or Professor Hale, although not so great as Mr Darwin himself seems to suppose. The chief moment or factor of conscience, according to Mr Darwin, is the social instinct which leads animals to take pleasure in the society of their fellows, "to feel a certain amount of sympathy with them, and to perform various services for them." This instinct is shared in by many animals, conspicuously by the monkeys, regarding whom many curious instances are produced. One example may be given from the birds:

Capain Stansbury found on a salt lake in Utah an old and completely blind plover, which was very fat, and must have been long and well fed by his companions.

But whence comes the supremacy of conscience? why should it set up a claim to dominion over all the other instincts? Because it is always with us, whereas the other instincts give brief pleasure, and when out of sight are out of mind. Thus any violence done to the social instinct continues to give pain long after the temptation has disappeared, and the momentary gratification is forgotten. Perhaps the most powerful instinct in a bird is the maternal, but it yields to the migratory instinct. "When arrived at the end of her long journey, and the migratory instinct ceases to act, what an agony of remorse each bird would feel, if, from being endowed with great mental activity, she could not prevent the image continually passing before her mind of her young ones perishing in the bleak north from cold and hunger." The whole chapter is of great interest; it traces the analogy between the social animals and man very closely and instructively.

The conclusion to which Mr Darwin comes is the same as that expressed by Professor Huxley, "that man in all parts of his organization differs less from the higher apes than these do from the lower members of the same group." It is probable that man originated from an ancient member of the sub-group of anthropomorphous apes, the representatives of which now are the gorilla, chimpanzee, orang, and hylobate. Man may have diverged from the stock so far back as the Eocene period. He is related to the gorilla, not as a grandson or great grandson, but as a grand-nephew or great grand-nephew, or perhaps as a distant cousin. We shall not pursue the genealogy farther; but it may be observed that Mr Darwin speculates with his usual ingenuity and sagacity on the probable line of descent. It may, however, not be uninteresting to quote his "restoration" of our forefathers:

The early progenitors of man were no doubt once covered with hair, both sexes having beards; their ears were pointed and

capable of movement, and their bodies were provided with a tail having the proper muscles. Their limbs and bodies were also armed as by many mammals which now only occasionally respond, but are normally present in the Quadrumana. The great artery and nerve of the humerus ran through a space-occupied foramen. At this or some similar period, the intestine gave forth a much larger diverticulum or caecum than that now existing. The feet judging from the condition of the great toe in the latter was three phalanges; and our progenitors, as teeth, were adorned in their habits, frequenting some warm, forested land. The males were provided with great canine teeth, which served them as formidable weapons.

Our notice of the second part of Mr Darwin's book, on "Sexual Selection," must be reserved for another article.

## JAPANESE LITERATURE.

*Tales of Old Japan.* By A. E. Mitford, Second Secretary to the British Legation in Japan. In Two Volumes. Macmillan.

The recent revolution in Japan has caused so many changes, both political and social, throughout the country, that a book which attempts to give us a sketch of old Japanese customs and institutions is very welcome. We cannot praise too highly Mr Mitford's pleasant volume. He has here translated into readable English some of the most interesting national legends, histories, and specimens of literature, and has appended copious notes explanatory of the text, where necessary. The illustrations, which are genuine specimens of Japanese art, confer a substantial value on the book. They were drawn by a native artist, named Oshiki, and were cut in wood by a celebrated wood-engraver at Yedo; and it is a curious fact, illustrative of Japanese skill, that the lines are cut with the grain of the wood after the manner of Albert Dürer and the old German masters. The first volume contains some legends of the Bôshû or knights-errant of old Japan, and a selection of fairy tales; while the second is devoted to certain ancient superstitions, Japanese proverbs, and some of the native sites and ceremonies. The first two tales originally appeared in the *Fortnightly Review*, and two of the sentences and a portion of the appendix in the *Cornhill Magazine*.

The old Japanese customs and institutions, which the travellers, Guro and Fischer, Knappler and Thunberg, have described, have now almost entirely disappeared. The feudal system, with its oppression and tyranny, its cruelties and injustice, has faded away even before the eyes of those Europeans who have resided in Japan during the last few years. The Mikado having shaken off his cloths, and abandoned his seclusion in the sacred capital at Kioto, has at length proved his title to the imperial dignity. His *Méine de Palais*, the Shôgun or Tycoon—"Barbarian-repressing Commander-in-Chief"—who so long seemed to share the sovereignty with his royal master, has now been relegated to his proper position, while the Daimios, or great feudal lords, have restored their fiefs into the hands of the Emperor, and have yielded to him their independent rights. A new Japan has sprung up, which is essentially different to that "Land of Barbs" to which we were introduced only eleven years ago; and it is very important that we should endeavour, before it is too late, to secure some record of a curious civilization which has passed away, and realize what manner of men were the land and the retainer, the warrior and the priest, of ancient Japanese society.

It is a curious fact that in all the thickly-populated nations of Eastern Asia human life is held of very small account. A bold Darwinian apostle might, indeed, see in the frequent murders and suicides of the Japanese a natural preventive check upon a too rapid increase of breeders. Mr Mitford, in the story of "The Forty-seven Rôbins," tells us how readily the old knights-errant of Japan engaged in some bloody enterprise, committed wholesale murder in revenge of a petty slight upon themselves or their lords, and then, to satisfy the requirements of Japanese justice, killed themselves by harakiri. The forty-seven knights, who lie buried amidst the groves of stately trees in the cemetery of Seagahyri, are famous in history, and are heroes of the drama. Pines handle still burn incense upon their grass and deck them with green boughs; and every sixty years a commemorative festival is held for two months, to which the people flock from all parts of the country, to do honour to the memory of these brave men,