

said that he saw the same odgers come day after day. Again, it has been found that the popular character of this class of charities, and the facility with which the outward appearance of a public soup-kitchen can be simulated, has made this an easy mode of obtaining money under false pretences. The plan adopted is to issue occasional appeals, and to furnish food to such persons as may happen to come provided with subscribers' tickets, but the majority of those who subscribe do not trouble themselves to give tickets, and there is neither account nor profit of the balance. It is clear that under the present system there is great waste, and that one soup-kitchen does the work which is now done by four or five. Count Hamford proposed, many years ago, what seems the proper mode of relief, the establishment of cooking depôts like those of Mr. Corbett at Glasgow, the success of which is so great that as much as 16,000,000, not the profits, have actually been devoted to charitable objects. It is to be regretted that the Working Men's Dinner Association, established to provide self-supporting kitchens, had not succeeded. As it is in St. George's-in-the-East 20,000 meals had been sold, and at Poplar as many as 6,000. It will astonish our readers to learn

#### The Amount of Relief Provided.

The last report of the Leicester-square Soup Kitchen, now moved to Ham-yard, Great Windmill-street, states that in 1898 350,000 dinners were given away during the preceding twelve months. At the Model Soup Kitchen, in the Easton-road, 150,000 persons were relieved, and 600 more had plum-pudding, bread and tea distributed to them on Christmas-day. There is a Donation Fund for assisting existing soup-kitchens, &c., which has an establishment in the Moore-road, Baywater. In 1898 87,134 meals were given, consisting of bread, cheese, and soup, besides assistance in money and clothing to the most deserving by the Society for the Suppression of Mendacity. The Petherton-yard Asylum distributed 234,322 portions of bread between the 1st of January and the 15th of April, 1893; the Metropolitan Free Dispensary Association professes to provide shelter and food nightly for 800 persons; while the Providence-evening Night Refuge advertisement that "from the commencement 180,000 night's lodgings, with supper and breakfast, have been given to the honest and deserving poor without any distinction of religion, whilst at present the number is 1,800 a week." Last year the South London Night Refuge for homeless men and women received and fed with bread and coffee 31,328 persons. In St. Giles's, Mr. George Hutton, in connection with his Christmas mission there, has gratuitously distributed 15,000 quarts of soup with bread. In Eddell-street, St. Giles's, the Prosemyerians have established a mission. At the Invalid Kitchen of the Bedford Institute, last year, 25,000 meals with rice, 700 pints of beef-tea, and 600 pints of milk-arrowroot, have been given to the sick. And at the infant-school connected with the place from 80 to 120 meals were balanced on soup and pudding. At the St. Andrew's Mission, Lambeth, 10,747 children's dinners were provided—6,951 breakfasts given. At the Golden-lane Mission and Ragged-school 24,000 meals were given during

the last three years. Close by the Bar. Books may conduct the Goswell-street Mission. Between October 1, 1895, and April, 1896, fifty-eight dining-rooms were opened for longer or shorter periods in the most impoverished districts of the metropolis by the Domestic Children's Society, and 147,836 dinners were supplied. The Ragged-schools, to the number of 300, do as much as they can in this way. In six only of the East London schools as many as 50,152 meals were given during the cold season. Last winter in Charles-street, Drury-lane, 5,000 quarts of soup were distributed and 2,800 dinners given. A most excellent institution, the St. Pancras Invalids' Dinner Table, in 1899 gave as many as 18,800 dinners to invalids, many of them the out-patients of University College Hospital. The price of the tickets is half the cost of the food. In Earl-street, Lincoln-grove, there is another institution of the kind, in which last year 6,143 dinners were given. At both children as well as adults share in the benefits provided. Similar establishments on a smaller scale exist in Ebury-street, Salem-road, Baywater. At St. Mary's Kitchen, Market-street, Epsom-road, no payments were required. In 1899 14,114 dinners were given to 1,142 persons. There is the children's dinner table and soup-kitchen, at Pudding-street, Marylebone, and a Poplar Invalids' and children's table, besides local soup-kitchens, and a novelty in the way of industrial kitchens, the objects of which are to instruct the girls of the national school in economical cookery, and to fit them for service, and to help the sick and distressed among the neighbouring poor by supplying them with well-cooked provisions on a cheap rate. It appears altogether there are eighty-six soup-kitchens and dinner-tables at work, in addition to the operations of the Poor-law. Hardly people ought not to die of starvation in the metropolis. Surely also there must be an little waste of charitable relief. Since writing the above we see a similar feeling expressed in other quarters. The Society for Organizing Charitable Relief and Reposing Hospitality have sent a communication to the committee of the Houseless Poor Asylum earnestly requesting them to consider whether the present state of that institution is not calculated to increase the mass of pauperism and demoralization in the metropolis by attracting to it persons of idle, mendicant habits, and encouraging them to continue that course of life, and whether, by furnishing them with lodging and food, without exacting any labour, they do not encourage the idleness which the legislature has in view in providing for the better regulation of the casual wards.

#### THE DESCENT OF MAN.\*

We said that Mr. Darwin's argument in this book depends largely upon the proposition that there is no difference in kind, some except in degree, between the intelligence of man and that of the lower animals. He admits that the difference in intelligence is enormous, even if we compare the mind of one of the lowest savages, who has no words to express any number higher than five, and who uses no abstract terms for the commonest objects or affections, with that of the most highly organized ape. But he urges that between the naked savage who dashes his child on the rocks for dropping a basket of sea-urchins and a Kewgard

\* The Descent of Man, and Selection in Relation to Sex, by Charles Darwin, M.A., F.R.S., &c. Two Vols., Murray, 1871.

or Clarkson the interval is also immense, as Aristotle is that between a barbaric unacquainted with any abstract terms and a Newton or a Shakespeare. It is one of the most marked characteristics of Mr. Darwin that he never diagnoses the foolishness of any point in his reasoning if he feels it to be foolish. He honestly states facts which seem to lie against himself, and adds no special pleading in this way to prevent them from having their full effect upon the mind of the reader. Nay, we are disposed to grant that he does not press certain considerations which favour his general view so far as, with Mr. Wallace's help, he might have done. He brings forward quite calmly the old and common statement that, whereas man is continually improving and progressing, the beaver builds his dam as well as the first as at the twentieth attempt, and the bird that first prepares a nest for its young does it with as much taste and care as it with as much care as the bird that has done so for many seasons. We are convinced that Mr. Wallace is right in allowing that young birds and young beavers learn their trade, and study in the school of experience. Doubtless they are much to instruct, &c., in inherited capacity; but our bird-motting expeditions taught us long ago that some birds understood the arts of nest-building and nest-lining better than others, and we believe obtain to play a part in the history of all the higher animals. A chaffinch's nest is one of the loveliest of things, but no two chaffinch nests are alike; and the blundering young chaffinch will build her nest in full view of the village boys, while the sage and maturely chaffinch sets it in the highest fork of the apple-tree, where no eye can distinguish it from the lichen of the boughs, and where it remains in tranquillity till winter strips away the leaves, and the secret is revealed. Obviously, however, the effect of Mr. Darwin's guarded statements and of his contempt for special pleading is to enhance the value of those facts which he deems worthy of being chronicled. These volumes contain an immense number of interesting stories relating to the faculties and habits of animals. We shall quote a few samples, endeavoring to select those which may be regarded as having most force in relation to Mr. Darwin's general argument. Our sub-titles indicate the quality which the extract is intended to illustrate.

#### Wonder and Curiosity.

Animals manifestly enjoy amusement and suffer from ennui, as may be seen with dogs, cats, monkeys, &c., and many monkeys. All animals feel wonder, and many exhibit curiosity. They sometimes suffer from the latter quality, as when the latter plays antics, and does strange things. I have witnessed this with deer, and so it is with the warty manatee, and with some kind of wild ducks. Stron gave a curious account of the instinctive dread which his monkeys exhibited towards snakes; but their curiosity was so great that they could not resist from occasionally satisfying their hunger in a most human fashion—by lifting up the lid of the box in which the snakes were kept. I was so much surprised at his account, that I took a stuffed and coiled up snake into the monkey house of the Zoological Gardens, and the excitement thus caused was one of the most curious spectacles that I ever beheld. Three species of Cercopithecoidea were the most alarmed; they dashed about their cages, and uttered sharp

slight effect of danger, which were manifested by the other monkeys. A few young monkeys and one old female sat down close to the notice of the snake. Others placed the affected spot on the ground in one of the larger compartments. After a time all the monkeys collected round it in a large circle, and, starting together, presented a most hilarious appearance. They began hysterically screaming, as if they were a whole pack, with their eyes fixed on the reptile. One monkey, who was standing in the slight arch which it was partly hidden, they all hastily started away. These monkeys behaved very differently when a dead fish, a mouse, and some other new objects were placed in their cages: for though at first frightened, they soon approached, handled, and examined them. I then placed a live snake in a paper bag, with the mouth loosely closed, in one of the larger compartments. One of the monkeys immediately approached, cautiously opened the bag in this respect, and, immediately started away. The next moment what Darwin has described, for monkey after monkey, with head raised high and, toward one side, could not resist falling backward upon the upright bag in the dreadful state lying quiet on the bottom. It would almost appear as if monkeys had some notion of reciprocal affection, for those kept by Darwin exhibited a strange, though mistaken, instinctive dread of snakes' hissing and frisks. An object like that both seems to be much alarmed at the first sight of a snake.

#### Intelligence.

Hardly any faculty is more important for the intellectual progress of man than the power of attention. Animals clearly manifest this power, as when a cat watches by a hole and prepares to spring on the prey. While animals sometimes become so absorbed when thus engaged, that they may be easily approached, Mr. Darwin has given me a curious proof from the habits of the monkey. A monkey, who was twice brought in not once in purchase, comes from the Zoological Society at the price of two pounds for each, but he offered to give double the price if he might keep three or four of them for a few days, in order to select one. What animal but he could possibly do more have whether a particular monkey would turn out a good actor, he ascertained that it is dependent on their power of attention. If when he was talking and explaining anything to a monkey by selection was easily understood, as by a dog on the wall, or other trifling object, the man was helpless. If he tried by persuasion to make an indolent monkey act, it turned aside. On the other hand, a monkey which carefully attended to him could always be trained.

#### Memory.

It is almost superfluous to state that animals have excellent memories for persons and places. A baboon at the Cape of Good Hope, as I have been informed by Sir Andrew Smith, recognized him with joy after an absence of nine months. I had a dog who was taught and drove to all streets, and I purposely tried his memory after an absence of five years with two days. I would walk the stable where he lived, and showed to him in my old master. He showed no joy, but instantly followed me out to the stable, and there, as if I had acted with him only half an hour before. A pack of all unacquainted dogs, during three years, had been kept in a perfectly unacquainted in his mind. Even after a year he clearly shows, recognized their fellow-actors belonging to the same district after a separation of four months. Individuals are evidently by some means judge of the intervals of their absence received events.

#### Reason.

Few persons say longer suppose that animals possess some power of reasoning. Animals may constantly be seen to plan, deliberate, and resolve. 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 instinctive feelings. No doubt it is often difficult to distinguish between the power of reason and that of instinct. Thus Dr. Hagen, in his work on "The Open Polar Sea," repeatedly remarks that his dogs, instead of continuing to howl the whistles in a wretched way, stopped and appeared as if they were in this line, so that their whistles might be more easily directed. This was often the first warning and notice which the travellers received that the ice was becoming thin and dangerous. Now, did the dogs act thus from the experience of each individual, or from the example of the other and wise dogs, or from an inherited habit, that is from an instinct? This last might possibly have acted since the time, long ago, when dogs were first employed by the natives in drawing their sledges, or the Arctic voyagers, the present state of the English dog, now so improved, that it could be employed to attack their prey in a close pack when on this line. Questions of this kind are most difficult to answer.

So many facts have been recorded in various works showing that animals possess more degrees of reason, that I will here give only two or three instances, authorized by Benger, and relating to American monkeys, which stand low in their order. He states that when he first gave eggs to his monkeys, they examined them and then laid each of their contents; afterwards they gnawed the one and spat out some hard body, and gnawed the rest of shell with their teeth. After eating themselves only some with one shell and they could not resist. It again, or would handle it with the greatest care. Lumps of sugar were often given them wrapped up in paper, and Benger sometimes put a few ways in the paper, so that it hardly unfolding it they got sugar; after this had once happened, they always first held the paper in their nose to detect any movement within. Mr. Colquhoun wrapped two wild ducks, which fell on the opposite side of a stream; his retriever tried to bring one both as once, but could not succeed; so the dog, though never before known to visit a stream, deliberately killed one, brought over the other, and returned for the dead bird.

To such facts as these Mr. Darwin adds others, which, though of a more general nature, have not a less direct bearing on the argument. There are some monkeys which use stones to crack nuts, others which turn over stones to look for insects, and even make their strength to raise stones to help for a single monkey, others which defend themselves by rolling stones down steep banks. Mr. Darwin believes that he once saw a monkey use a lever. These are certainly striking facts, and, when taken in connection with those previously cited, cannot fail to make an impression on the mind. But yet they seem to us not yet to leave the gap between the animal and the man still unbridged,—for this is admitted by Mr. Darwin,—but to lead back to previous conceptions of the extent of that gap. That the body of man may have been created by God in the method of evolution from that of a lower animal they render conceivable or probable; but do they not make more conspicuous than before the need of a Divine impulse, a favouring Providence, in order that the highest ape might develop into a man? It is a most significant circumstance that no savage race of man is known to exist, or to have existed, in ignorance of the use of fire. Probably Mr. Darwin would not undertake to maintain that the most intelligent animal,—dog, elephant, or ape,—could, even by abso-

lute human education, be taught to write and look after a fire or to use it for the simplest purposes of industry. To kindle fire, to preserve it from going out, to burn it to use or lay it in thousands and, perhaps many and connected acts of intelligence. We have to recollect that the ape which first dared to approach near enough to notice how to examine and touch it—and this amount of curiosity is quite possible in such an animal—would run away howling when it burnt his paw. All we know of animal intelligence leads us to believe that this ape would not repeat the experiment. For the present we will be content to leave the argument here, challenging those who maintain that man has become what he is without Divine assistance, to explain the universal human use of fire, and the universal absence of that use in the part of animals.

We quoted formerly that Mr. Darwin declines the atheistic consequences which some draw from his system. In the following important passage he comes up, or partly comes up, to the moral and religious bearing of his views.

#### Moral Aspect of the Theory.

The moral nature of man has shocked the highest standard as yet attained, partly through the advancement of the reasoning power, and arrangements, of a just public opinion, but especially through the sympathies being rendered more tender and self-willing, and through the effects of habit, example, education, and reflection. In the most noble characters, however, the sense of right and wrong, conscience, has been cultivated. With the more civilized races the conviction of the existence of an all-wise and all-powerful God has had a greater influence on the advancement of morality. Ultimately man no longer accepts the praise or blame of his fellow as his chief good, though few escape this influence; but his spiritual condition, as evidenced by reason, affords him the chief end. He maintains that because his capacity judges and chooses. Nevertheless, that the foundation or origin of the moral sense lies in the social instincts, including sympathy; and these instincts are so developed, and extended, in the case of the lower animals, through natural selection.

He holds in God has often been conceived as not only the Creator, but the most complete of all the distributions between man and the lower animals. It is, however, impossible, as we have seen, to maintain that this belief is true or instructive to man. On the other hand a belief in all-powerful spiritual agencies seems to be universal, and apparently follows from a considerable advance in the reasoning powers of man, and from a still greater advance in his faculties of imagination, curiosity, and wonder. I am aware that the naturalist, or scientific belief in God has been used by many persons as an argument for theism. But this is a weak argument, as we should then be bound to believe in the existence of many good and malignant spirits, possessing only a little more power than man, for the belief in them is the more general than that of a beneficent Deity. The idea of a universal and beneficent Creator of the universe does not seem to arise in the mind of man, until he has been elevated by long-continued culture.

He who believes in the advancement of man from some lowly organized form, will naturally ask how does this bear on the belief in the immortality of the soul. The barbarous race of man, as Mr. J. Lubbock has shown, possess an other belief of this kind; but arguments derived from the present state of savage man, as we have just seen, of little or no avail. Few persons

but any anxiety from the impossibility of determining at what precise period in the descent of the individual, from the first trace of the common germinal vesicle to the child either before or after birth, man becomes an individual being; and there is no greater cause for anxiety because the period in the gradually ascending organic scale cannot possibly be determined.

I am aware that the conclusions arrived at in this work will be denounced by some as highly irreligious; but he who thus denounces them is bound to show why it is more irreligious to explain the origin of man as a distinct species by descent from some lower form, through the laws of variation and natural selection, than to explain the birth of the individual through the laws of ordinary reproduction. The birth both of the species and of the individual are equally parts of that grand sequence of events, which our minds refuse to accept as the work of blind chance. The unreasonableness of such a conclusion, whether or not we are able to believe that every slight variation of structure, the union of such pairs in marriage, the dissemination of such seed, and other such events, have all been ordained for some special purpose.

Mr. Darwin attaches very great importance, in connection with the evolution of man, to what he calls sexual selection. By choosing and often by fighting for the most comely and intelligent women, savage tribes have, he thinks, greatly promoted their advance to higher conditions of life. On this large department of the subject we cannot enter, and, indeed, its discussion is not well fitted for the pages of widely-read periodicals, but we are strongly inclined to think that Mr. Darwin has fallen into the error into which those who have a pet idea are always liable to fall, namely, that of overrating its importance. We do not believe that sexual selection has effected so much as Mr. Darwin implies to it.

We may interest our scientific readers by stating that Mr. Darwin, in endeavouring to trace the line of descent of the vertebrate animals, follows Professor Huxley in regarding the lancelet or amphioxus as the probable link between the vertebrate and invertebrate kingdoms, and adopts Oudemans's daring and ingenious conjecture that the affinities of the lancelet conduct us to the Annelida, which "hardly appear like animals, and consist of a simple, long, leathery sack, with two small projecting warts." According to these naturalists, there was, throughout this vast series, not one instance of "overlapping." The evolution took place by means of successive variations, such as insects as to be hardly observable. Of these variations, perhaps one in a thousand has been preserved, either in the existing creation or in the geological record, but every instance of variation was necessary. The mammal, according to Darwin, was produced by the bird, the bird by the reptile, the reptile by the amphioxus, the amphioxus by the fish. This order of succession was doubtfully necessary. But no words seem clear enough to explain this necessity, or what it implies, to persons unacquainted with the principles of biological succession; and some of our readers have imagined that, in saying that no Darwinian could believe in the possibility of a fish producing a bird, we denied that Mr. Darwin believes that birds are descended from fishes. Evolution involves infinite gradation, but no overlapping.