

ARTICLE II.

THE DESCENT OF MAN AND SEXUAL SELECTION IN RELATION TO SEX. BY CHARLES DARWIN. 2 VOLS. 12MO. APPLETON & CO., NEW YORK. 1871.

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In a former article, we promised, God willing, to present some further objections to Mr. Darwin's theory of "Natural Selection," on which he bases the hypothesis of the "Descent of Man." As we do not desire to travel over ground which has already been explored by those much abler than ourselves, we shall try to confine our criticisms to those points which have not been noticed, or which have not been fully discussed, devoting the greater portion of the present article to an examination of the theory as applied to man.

Therefore we will first call attention to some other objections to which we think the theory is obnoxious in its general application.

The Duke of Argyll* incidentally calls attention to the insufficiency of the hypothesis of Natural Selection to account for the production of organs which can be of no advantage in their incipient stages. This idea has subsequently been more thoroughly discussed by Mr. Mivart in his "Genesis of Species;" and, so far as we are aware, this objection has not

*North British Review, June, 1867, p. 288, (we learn elsewhere that the Duke is the author of this very able article).

been thoroughly answered by Mr. Darwin, or any of the advocates of his theory.

In order to present fully the force of this objection, we call attention to the position Mr. Darwin takes. He says, "Slight individual differences, however, suffice for the work, and are probably the sole differences which are effective in the production of new species."* And, in his *Origin of Species*, he admits: "If it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous successive slight modifications, my theory would absolutely break down."†

As a matter of course we are to presume that Mr. Darwin intended this as a fair and candid admission and applicable to the point at issue. Then it is equivalent to saying, that if it can be demonstrated that any complex organ exists which could not, in accordance with his theory, have been formed by numerous, successive slight modifications, his theory must break down. By his theory Natural Selection will only develop those small variations which, when they appear, prove advantageous in the struggle for existence. If any complex organs can be found which could not be advantageous in their incipient states, it follows that these could not be developed by natural selection. Mr. Mivart has called attention to a number of examples of this kind, as the asymmetrical heads of flat-fishes; the formation of limbs in the higher animals; the development of whalebone (balcen) in the mouth of the whale; the formation of the eye and ear, wings of birds, &c.

In addition to these examples, we would refer to the wings of certain beetles (Coleoptera) and bugs (Hemiptera) which reside in the water—among the former the Dyticidæ, and among the latter the Notonectidæ, which are found distributed throughout the world.

These insects are possessed of both upper and under wings, the latter being adapted to and used by them in flight, although they pass their entire existence, from the egg to the

* *Animals and Plants under Domestication*. II. 192.

† Page, 111.

close of the imago or perfect state, in the water (except their occasional flights in the air). The wing of an insect is certainly a complex organ, and can be adapted to but one purpose, and, in order to accomplish this purpose, requires certain peculiar adaptations of several parts of the body. Muscles must be formed or adapted to its use, and Mr. Burmeister says that "not only the muscles which are attached to the organs of flight, but all those found in the thorax, participate in producing it (flight)."* It should also be borne in mind that wings in insects are not the homologues of limbs, as in birds, but are more in the nature of shriveled trachæa or lungs, which renders the difficulty of accounting for their production, if possible, greater than if they were counterparts of the limbs.

According to the hypothesis of Mr. Darwin, these must have been developed from minute variations because those variations were found to be advantageous in the struggle for existence. And as this development was in a given direction, to wit, as organs of flight, then their advantage in all stages must have been in this same direction. Of what possible advantage as organs of flight could these have been in their incipient state to these aquatic insects? If they were beneficial in this state, it must have been as organs of flight, and not as swimmerets or trachæa — as natural selection would have developed them to their maximum of utility in that direction, and not as organs of flight—but it is absurd to suppose they could have been useful as organs of flight until developed.

Here, then, is a complex organ which could not possibly have been formed by numerous, slight modifications, by natural selection, upon the theory that this law or force develops only those variations which are advantageous in the struggle for existence. But perhaps the reply is made that there are many insects which, during their existence, have but abortive wings, and therefore our objection would apply with equal force to these. The case is somewhat stronger when applied to aquatic than to terrestrial species, and so far as Mr. Dar-

*Manual of Ent. I. §266.

win's theory is concerned, we think it impossible to account for these abortive wings, or wings in any case. But suppose we cannot account for them, does this lessen the difficulty in the way of the hypothesis of Natural Selection? Must we accept a theory which is hemmed in by insuperable difficulties because we cannot explain those difficulties on any other hypothesis? If so, then it is better to ascribe these things to the direct application of creative power, and thus cut the gordian knot, because we thus place the secret in the hands to which it belongs. But we think there is a method of explaining this upon a theory much more reasonable than that proposed by Mr. Darwin.

It also appears to be difficult, on Mr. Darwin's theory, to account for what is term "parthenogenesis," or the continued reproduction of individuals, in animals where the sexes are distinct, without the intervention of the male for a number of generations. One example is sufficient to present the force of this difficulty.

The Aphides, or plant lice, usually at the end of the summer produce individuals of both sexes, the females deposit fecundated eggs, which in the spring produce only females; these females, without fresh impregnation, produce another brood likewise all females; this method of reproduction continuing some seven or eight generations, until the close of the season, when the last brood consists of individuals of both sexes. During the summer, while this strange method of reproduction is going on, instead of depositing eggs, these females are ovoviviparous. It appears to be possible by introducing them into some situation where the proper temperature can be maintained to continue this method of reproduction, without the intervention of males, for an indefinite length of time. The writer has observed this singular process going on even in the winter when the snow was on the ground, in the case of an aphid that feeds on young winter wheat.

We are aware that it is exceedingly difficult to furnish any satisfactory explanation of this abnormal process, and do not present it as an objection to the theory of Natural Selection

that it fails to give the solution, but because it appears to stand in direct opposition to that theory. To say that it is the result of a law implanted in the nature of these insects, explains nothing, but to say that it was brought about gradually, by slight modifications, appears to be assuming that which must necessarily be in direct conflict with natural laws. When it is a law—in a given group—that the union of the sexes is necessary to reproduction, how is a change from this method to take place by slight modifications?

The great error which Mr. Darwin, and those who advocate his theory, fall into, and which vitiates all their arguments and conclusions is, looking wholly at one side of the question, shutting their eyes to every influence but the one. While there may be a tendency to vary, there may be a law directing this tendency and limiting it to the production of given forms. The array of examples showing a tendency in one direction, does not necessarily prove this to be the law which governs, for another force, moving in another direction, may so modify the former as to give a third course as the ultimate result. If we examine the movement of bodies, we shall find that these motions are always curvilinear, even the line described by a falling body, in a vacuum, is not straight in the absolute sense. Shall we therefore conclude that it is a law of matter to move in a curved line when put in motion? A theory built upon such an inference, although supported by an infinite array of examples, would scarcely supplant the Newtonian doctrine that this is the resultant of forces moving in straight lines; we believe the attempt was made a few years since, but it scarcely made a ripple on the surface of scientific opinion. Even if we admit that Mr. Darwin's theory of variation and natural selection is substantially correct, it does not necessarily follow that the results must coincide with the direction of this law or force, for another force may very materially change the results.

Admit that there is a tendency to vary in every direction, and that natural selection tends to develop the advantageous variations to the maximum of utility; there is also, as we

know by daily observation, a law of nature, that like shall produce like; what reason have we for assuming that time will enable the former to overcome the latter?

Having pointed out some of the difficulties which appear to us to oppose themselves to the reception of this theory, and which indicate its insufficiency to account for the immense variety of animated forms that people the earth, let us turn our attention to its application to man.

As remarked in the former article, even if we were to admit the theory of development by natural selection to be true in regard to all animals below man, it does not necessarily follow that he is subject to the same law, or that he forms one link in the great chain. And at this point Mr. Wallace, one of the founders of the hypothesis, hesitates, and appears to consider the gap too broad to be bridged by this theory alone.

If man, as a species, has been developed from some lower form, it is evident that we must look for that form among the apes, or some intermediate extinct group; the anthropoid apes making the nearest approach of any living species.

Let us then notice some of the prominent differences between man and the monkey. We do not allude to the difference in physical structure, for we frankly confess that our knowledge of comparative anatomy is not sufficient to do this properly, and, moreover, it is wholly unnecessary in the the objections we desire to present.

One of the first and most apparent is, that one makes use of instruments by means of which he overcomes force and accomplishes that which he is unable to do with his natural organs, while the other does not. How does Mr. Darwin meet this objection? He brings forward a few instances—and very few—where the chimpanzee has been known to use stones to crack some native fruits. And the inference he would have us draw, is, that if a few monkeys have done this, it is an evidence of a dawning intellect, and being advantageous in the struggle for existence, may be developed, by natural selection, into that knowledge which enables us to dig the ore from the earth and convert it into instruments of

a thousand forms; to construct an endless variety of machinery to assist in the various operations of life; to make telescopes with which we can sound the depths of the universe, and microscopes with which we can reveal the hitherto invisible things of nature; and to construct railroads on which we can sweep over the land at a speed that equals the Arabian courser.

Such, in part, is the vast fabric we are asked to believe was built on this small foundation. To ask us to believe that this is reasonable, appears to be more than Mr. Darwin can do; but he suggests that such may have been the fact. Is it reasonable? This is the true test, and this we ask. If it will not bear this test, it is certainly hazardous to hang such important conclusions upon it.

An examination of the monuments of Egypt show us how the monkey and man appeared side by side some three or four thousand years ago. In one of Champollion's magnificent plates* we notice a Cynocephalus represented as walking on its feet, bearing in its hand an instrument of some kind. And another on its feet elevating its hands in adoration of the goddess Tefnu. The figures on another monument represent the conquered nations bringing tributes—among these we see the monkey led by a leash, in the same manner as by the organ-grinders of the present day.† Many of the figures on these monuments are allegorical, but they are founded on some knowledge of nature; the figure of the hawk-headed Ra would never have been made unless those who made it had seen a hawk; and those figures showing the tributes brought, are doubtless intended to be true to nature. If man, in the three or four thousand years which have passed since these figures were made, has advanced so greatly in regard to those things which relate to the operations of life, how are we to account for the fact that the Cynocephalus is no farther advanced to-day than it was in the days of Rameses III?

*Monuments de L'Egypt et de La Nubie. By Champollion le june. Vol. I. Pl. 51.

†Egypt. By Champollion—Figeac. Pl. 92.

We presume the advocates of the theory of natural selection will call this trifling with the subject. That they will contend that Egypt of to-day can scarcely claim a higher position than Egypt under the "Old Empire;" that they will attribute the advance to another race and to the active *mind* of man; and that they will call four thousand years but a moment of time, compared with the illimitable ages they assume for the operations of the law of evolution.

If Egyptians have not advanced, the race has, Egyptian art, learning and knowledge forming, in part, the base upon which this advance has been founded. The monkey, from that day to the present, and if the doctrine of selection be true, for thousands of years before, has been more or less in contact with man, yet in all this time has learned nothing more of the use of instruments than to crack a nut occasionally with a stone. And even this is an art known to but a favored few; it is not even a specific character.

The horse has been the companion of man as far back as history reaches; yet those represented on the temple of Ibsamboul as drawing the chariot of Rameses III.* are equal, in every respect, to those of the present day. The bit was then used as now, yet this usage for thousands of years appears to have made no difference in its mouth; and even the check rein was used then as now, indicating the same habit in harness that we see exhibited now. Is it not strange that such a long usage of this docile animal, on which man has bestowed so much care, has made absolutely no change in his form, habits or mental powers (if possessed of a mind), while his companion, man, has, in several respects at least, made such rapid strides?

Four thousand years is a large unit of measure, and is an appreciable portion of one hundred thousand, or even two hundred thousand years. And if even in the longer term such great advance has been made, some portion of it ought to be visible in the time which has elapsed since the earlier

*Champollion. Mon. Egyp. et Nub. Vol. I. Pl. 15.

monuments of Egypt were built. It should also be borne in mind that we have limited our estimate of the age of these remains according to the calculations of Bunsen,* who fixes the Old Empire's duration at 1076 years, that of the Middle Empire, or Dynasties of the Shepherd Kings, at 900 years, and that of the New Empire, down to Alexander, at 1300 years; but if we were to follow with the credulity of Mr. Darwin every statement which appeared to favor our argument, we might accept the entire chronology of Manetho which would carry us back nearly 25,000 years before the time of Alexander.†

Another marked and important difference between man and the animals which make the nearest approach to him in physical structure, is the use of language.

Mr. Darwin, in order to account for this on his hypothesis, presents the following facts and surmises. That in Paraguay the *Cebus azaræ*, when excited, utters at least six distinct sounds, which excite in other monkeys similar emotions. That the dog since being domesticated has learned to bark in at least four or five distinct tones. That the sounds uttered by birds offer, in several respects, the closest analogy to language, for all the members of the same species utter the same instinctive cries expressive of their emotions; and all the kinds that have the power of singing, exert this power instinctively. But, he says, it has been proved that these sounds (of birds) are no more innate than language in man. He then goes on to state "that primeval man, or rather the early progenitor of man, probably used his voice largely, as does one of the gibbon-apes of the present day, in producing true musical cadences, that is, singing. * * The imitation by articulate sounds of musical cries *might have given rise to words* expressive of various complex emotions. * * As the voice was used, more and more, the vocal organs would have been

*Egypt's Place in History, Vol. I.

†The reader will bear in mind the fact that we are conducting this discussion without appeal to the Holy Scriptures; trusting that the result will show that nature can only be read correctly in the light of Revelation.

strengthened and perfected through the principle of the inherited effects of use; and this would have reacted on the power of speech.”*

The fact that animals utter sounds indicative of emotions, forms but a minute beginning from which to develop the languages in use among the races of men. But if we examine carefully the examples given—and we suppose Mr. Darwin has brought forward the best possible for his argument—we shall find that even these do not harmonize with the theory of natural selection. This hypothesis requires that, that variation which is of advantage shall be developed by natural selection in the direction in which it is advantageous in the struggle for existence. And when it is assumed that a certain variation was the beginning from which a given organ or faculty was developed, this development must be continuous to the maximum of utility; hence, if human language was developed from these utterances of animals, they must have gradually approached nearer and nearer to that perfection which could properly be denominated language. Therefore, those sounds uttered by the animals which approach nearest to man in physical organization, should have the closest approximation to articulate language. But Mr. Darwin informs us that the notes or sounds of birds offer, in several respects, the closest analogy to language. Here, then, we see, that in order to find something on which to base his theory in respect to the development of this important faculty, he passes back over the entire class of mammals to that of birds. If these animals make the nearest approach, in the utterance of sounds, to that of the human voice, is it not *strange* that when we rise to that group which makes the closest approximation, physically, to man, we find there has *been no progress*, but, in fact, a retrocession? The progress from the bird to the chimpanzee is a long step, during which *immense changes* occurred; the wings were converted into legs, the feathers into hair, the beak into a mouth with teeth;

*Desc. Man. l. 52—55.

yet the development in the power of uttering sounds made no advance. But, behold! what a rapid advance is made in this respect in the next step. Mr. Darwin must take one or the other horn of the dilemma; his examples prove nothing, or they prove too much. An infinite number of examples prove nothing, unless they are applicable to the case.

The simple fact that animals have the power of uttering sounds, cannot be adduced as evidence in favor of this theory as applied to the origin of human language. The katy-dids and the cicadae utter loud and distinct sounds, often making the woods resound with their notes; but the one has a special arrangement of the elytra for this purpose, and the other a special organ at the base of the abdomen. We can refer to well attested instances of owls collecting together at night and dancing round, apparently in concert and to the sound of their own discordant notes. Shall we infer from this that the dancing propensisy, in a large number of the human family, has been developed from the nocturnal orgies of the owls? Surely one is about as reasonable as the other. Yet such are the arguments presented to establish the theory that man, with all his powers of mind and an immortal soul, is but a transformed ape.

The architectural art and use of dress, especially among the advanced races, forms a wide difference between the habits of the monkey and man. But Mr. Darwin undertakes to show or indicate, at least, that the germs of these habits are to be found in the apes, and he does it after this manner.

“The anthropomorphous apes, guided *probably* by instinct, build for themselves temporary platforms; but as many instincts *are largely controlled by reason*, the simpler one, such as this of building a platform, *might* readily pass into a voluntary and conscious act. The orang is known to cover itself at night with the leaves of the Pandanus; and Brehm states that one of his baboons used too protect itself from the heat of the sun, by throwing a straw mat over its head. In these latter habits, we *probably* see the first steps toward some of the

simpler arts; namely, rude architecture and dress, as they arose among the early progenitors of man.”*

As this is a specimen of his reasoning on a subject of so much importance as the descent of man, let us examine it somewhat carefully. There are three suppositions: “guided probably,” “might readily pass,” and “we probably see.” In the second place, there is a virtual contradiction; for he says they are “guided probably by instinct,” and then asserts that “many instincts are largely controlled by reason.” He evidently makes a distinction between instinct and reason; and bases the conclusion drawn here upon the presumption, or rather assertion, that instinct is often controlled by reason.

If the two are distinct, then so far as instinct is controlled by reason it is no longer instinct; and if these are guided by instinct to build platforms, they are not guided by reason. The simpler instincts, such as this of building a platform, he says, “might readily pass into a voluntary and conscious act.” By what process is this change to take place? Upon what fact does he base such supposition? And why does he assume that a simple instinct will pass into a conscious act any sooner than a more complex one, which seems more like an act of reason than the simpler one? And here Mr. Darwin's examples again prove nothing or they prove too much. What person that has seen it, has failed to admire the nest of the oriole, built with so much care and skill; and we might name hundreds of other birds which build nests that display a much higher degree of workmanship than the platform of the apes referred to. The beaver cuts down trees, strips them of their branches, and with them builds a dam with such skill that the first one the writer saw—as it was in an inhabited section of the country—he could hardly be convinced was not the work of man's hands.

But if we descend much lower in the scale of being, we find instinct leading animals to form structures much more complex than the simple platform of the ape. The comb of the bee and the nest of the wasp are known to every one.

A species of Neuropterous insects, the *Termes fatale*, a kind of ant, builds a nest from eight to ten feet high, with halls and galleries almost as numerous and intricate as the Labyrinth of Labæis. If the argument of Mr. Darwin had any force in it, then, we might yet hope to find Gulliver's Lilliputians somewhere in Africa as the descendants of the Termites. We do not appeal to ridicule as an argument, but we cannot see any stronger reason for believing, from Mr. Darwin's argument, that man is a descendant of the ape because it builds a platform, than that a small race of men should descend from these mound-building ants.

If the germs of architectural art began to show themselves on the insects, and appeared in an advanced stage in the birds, the apes ought to know how to construct, at least, a pretty good log-cabin. But it may be claimed that the ape has not been developed from the bird, or mammals from birds, or birds from insects. Then we must suppose each of these represents a separate advancing line from a common progenitor. And as the bird and insect, so far as art is concerned, have outstripped the ape, what is to be their next step? Has that step already, as in the case of the ape, been made? and, if so, where is the descendant?

We repeat what we have before said, that collecting together a multitude of disconnected facts proves nothing, except the patience of the collector. They must be applicable if they are to be received as evidence. We might take up the greater portion of the facts in these volumes and show their utter want of applicability, but our space is too limited, and we must turn to other questions of more importance.

We have traveled to this point with Mr. Mivart, and have found him an agreeable companion, but here our roads separate. We cannot accept the theory that man has descended from a lower form of being, no matter in what form it is presented, whether natural selection, external influences, or a law of organic matter. First, because we do not think it is a reasonable inference from the laws and phenomena of nature; second, because we think it is wholly inconsistent with the idea of an immortal soul in man; and last, though not

least, because we think it wholly inconsistent with the statements of the Holy Scriptures. But, while this is the case, we do not stand in such mortal terror of the idea that man may have lived upon the earth more than six, or even ten thousand years, that we should reject the theory on that account. For, although we believe the Bible to be a revelation from God, yet we do not have the most implicit confidence in the chronological calculations which have been made in regard to the pre-Abrahamic age. We have strong doubts as to whether the numbers in the earlier part of the Mosaic records are properly understood; and we can see no more impropriety in using scientific facts, than historical records, to aid us in chronological researches. We think the date of Adam's creation is yet an undetermined fact; it may have been six, or it may have been ten thousand years ago; yet the data we have, certainly point to a time which can reach back but a small portion of the age that the theory of development requires.

We are not so wedded to the idea, that the body of Adam was at first formed of full stature, and that into this form God breathed the breath of life, as to believe it to be an inseparable part of revelation. "God formed man of the dust of the ground and breathed into his nostrils the breath of life, and he became a living soul"—this we must believe if we believe the word of God. What the process of this formation was we are not informed; whether our Creator formed him from a germ, or in full stature, we do not know; and the one supposition is no more opposed to Revelation than the other. To suppose that he was thousands of years growing to full manhood, is no more opposed to express statements of the Bible than to suppose the same length of time was required to form the animals. But one fact we think does stand out clearly and boldly, and that is, that the creation of man was a separate and distinct act from the production of plants and animals; and we also think the sacred records clearly indicate that the process of the formation of the two was not the same.

We are glad this question has assumed so much importance

in the public mind, for we feel confident the investigations and discussions which grow out of it will, in the end, add new evidence to the truth of this wonderful Record. Already it has driven from the scientific arena the doctrine of a plurality of species in the human family, thus wheeling one more disputed point into the ranks of Bible evidences. There is also another important question, on which this discussion appears to be unconsciously throwing some rays of light. We simply allude to it, but not attempt to explain.

Mr. Darwin often speaks of the male of the human species bearing the rudiments of organs which appear to be purely feminine in their offices. The Bible informs us that God formed woman from one of man's ribs; there is something deeply significant in this, and, whether the statement be figurative or literal, the great fact which underlies it is not changed. What does this method of woman's formation indicate? That it was intended only teach a lesson can scarcely be imagined. Let us turn to our Saviour's words and see how the relation stands at the other end of the race: "For when they shall rise from the dead they neither marry, nor are given in marriage; but are as the angels which are in heaven." We leave the reader to draw his own conclusions; adding only that these words and the doctrine of development cannot easily be reconciled with each other.

Not only do we believe that the doctrine of development as applied to man is opposed to the Bible, but that it is inconsistent with reason, facts and history. And first, we do not think it possible for any theory of development to explain or account for the origination of the religious idea, or the idea of a future state.

Mr. Darwin not only admits, but presents arguments to prove, the specific identity of the races of men;* and also gives it as his opinion that Africa was the home of the original stock.† But it is proper to state, that he does not think it necessarily follows that all have sprung from a single pair, although originating in the same part of the world. We have, then,

*Dese. Man. I. 223—225.

†Ib. I. 191.

three points agreed upon, first, the unity of the species; second, that this species arose in a limited faunal district; and, third, that this district was situated on the old continent.

Mr. Darwin admits that before dispersion and the division into different races, certain practices, habits, etc., had been acquired and had become common; and this admission is made from the fact that these prevail among the widely dispersed groups at the present time. He also embraces in this category, mental faculties, as he remarks: "As it is improbable that the numerous and unimportant points of resemblance between the several races of men in bodily structure and mental faculties—I do not here refer to similar customs—should all have been independently acquired, they must have been inherited from progenitors who were thus characterized. We thus gain some insight into the early state of man, before he had spread, step by step, over the face of the earth."* He also quotes, approvingly, Sir J. Lubbock's statement that the art of making fire and forming rude canoes or rafts, was known before man wandered from his original birth-place.

Now let us apply the same method of reasoning to the facts in regard to the religious idea and the belief in a future state. He denies that there is any evidence that man was "aboriginally endowed with the ennobling belief in the existence of Omnipotent God." And asserts that numerous races have existed, and still exist, which have no idea of one or more gods.

This is an unfair and somewhat artful statement of the case, considering his stand-point. But let us see what the proofs are, and in the few pages left us we can but glance at some of them.

First, we appeal to Mr. Darwin, who says immediately after the denial just referred to: "If we include under the term '*religion*' the belief in unseen or spiritual agencies, the case is wholly different,"† that is to say, this belief is universal. Herbert Spencer admits a form of "religious belief through-

*Desc. Man. I. 225.

†Ib. I. 63.

out the world." Mr. Tylor, whom Mr. Darwin quotes, says "There may well have been, and there still may be, low races destitute of any belief in a future state. Nevertheless prudent ethnographers must often doubt accounts of such, for this reason, that the savage who declares that the dead live no more, may really mean to say, that they are dead."* And again: "So far as I can judge from the immense mass of accessible evidence, we have to admit that the belief in spiritual beings appears among all low races with whom we have attained to thoroughly intimate acquaintance."† Professor Caldwell remarks on this point as follows: "Whether there are any tribes altogether destitute of the conception of a future state seems exceedingly doubtful, many of the instances in which this was supposed to be the case having now been turned over to swell the vast multitude of examples to the contrary."‡ Quotations, showing this to be the case, can be multiplied to almost any extent, but this is unnecessary. It is, therefore, evident that before the dispersion of the race from the original birth-place, man must have possessed a belief in spiritual agencies, the future state, and some form of religion. Suppose we admit that there are a few savage tribes which have no form of religious belief, yet the number of widely distant and different races that do, prove this with ten-fold more certainty than any proof in regard to development. The attempt of Mr. Darwin, Spencer, and others, to account for the origin of the belief in spiritual agencies by dreams, does not necessarily come into our present line of argument. But we will make this suggestion, that dreams can never grasp a thought, or contain an idea, that the mind is incapable of in the awakened state; second, that an analysis of mental operations will show that belief in spiritual agencies cannot precede a belief in, or some idea of, a future state. In other words, some form of belief in regard to an indwelling, incorporeal existence, lies at the base of a belief in spiritual agencies. Even if Mr. Darwin should find some

*Primitive Culture. II. 17.

†Ib. I. 384.

‡Contemp. Rev., Jan., 1872. 217.

tribes which believe in spiritual agencies, and yet have no form of religious belief, or idea of a future state, he cannot adduce this as a proof of his theory, until he first shows they have not arrived at this point by degeneracy. These opinions or arguments, in regard to the effect of dreams, are based on mere suppositions framed, by the advocates of development, to meet the difficulty which presents itself at this point. It is admitted that all believe in spiritual agencies; that, so far as careful investigation has been made, nearly or quite all have some idea of a future state; and there is abundant evidence showing that a large majority of the various races and tribes have some form of religious belief, embracing the idea of some invisible, over-ruling power or powers. And that even in the varied forms of worship, there are many things which indicate a common origin. It is clear, therefore—arguing upon the same principle by which Mr. Darwin proves the common origin of the human family—that before the dispersion (and here we confine the use of this word to Mr. Darwin's idea) the religious idea must have reached a much higher status than is at present found among the lower savage tribes.

If the facts prove anything, they certainly prove this; and if we desire to arrive at the truth, we must follow whithersoever our testimony leads us; otherwise we are obnoxious to the charge that our prejudices cause us to warp the evidence to sustain a pre-arranged theory. Therefore, so far as these facts give us any light on the subject, they show that these lower tribes have degenerated from a higher state of religious belief, which is in direct conflict with the hypothesis of development. Mr. Darwin, and the advocates of his theory, starting with the ape, judging by certain powers and mental characteristics of animals and man, form an hypothesis on this point, without attempting to offer any proof. With their eyes riveted on the workings of nature, they wholly forget that man has an historical record, which may cast a few rays of light into the gloom which surrounds them. If the various historical lines in regard to the development of the religious idea, when followed back as far as they can be traced,

are found to converge toward a certain point, surely this is some evidence, and ought to be of more value than mere suppositions designed expressly and avowedly to suit a certain theory. And the interposition of the objection of immense length of time cannot effect this until the evidence in regard to man's long residence on earth proves stronger than the historical evidences—and then they only modify and lessen the value of the latter, but do not destroy it. Secondly, if these historical evidences correspond in results with the few rays of light we gather by comparing the religious ideas of the scattered tribes of earth, then our conclusions are greatly strengthened.

“The religion of the Hindoos, which is called the *Brahmin*, is the most ancient of the present systems of religion upon the earth, and probably one of the oldest ever known.”* While we might differ with the Count in one sense, yet we agree in believing the Brahminical religion to date back even beyond the dawn of history. The oldest of the Vedas, according to Wilson, (if we recollect rightly) existed as early as the sixteenth century before the Christian era. Sir William Jones thinks the Yajur Veda can be traced as far back as 1580 B. C.; and Björnstjerna thinks they reach as high as 2800 B. C. The sacred volume begins with these words: “There is only one God, Brahma, omnipotent, eternal, omnipresent, the great soul, of which all other gods are but parts.”† Although the hymns are addressed to created objects, &c., yet the monotheistic idea is the fundamental doctrine, as is clearly shown by Mohun Rey, a native. But, perhaps, our best authority is Max Müller, who says: “The ancient religions of the world, were but the milk of the nature, which was in due time to be succeeded by the bread of life. After the primeval physiolatry, which was common to all the members of the Aryan family, had, in the hands of a wily priesthood, been changed into an empty idolatry, the Indian alone of all the Aryan nations produced a new form

*Theogony of the Hindoos. By Count M. Björnstjerna. 9.

†ib. 9.

of religion, which has well been called subjective, as opposed to the more objective worship of nature."* The immortality of the soul is distinctly set forth, not merely as a philosophical proposition, but as a doctrine of religion.

But our object is only to show that as far back as we can trace the religious idea in this nation, it embraced a belief in an invisible, supreme controlling power; and the immortality of the soul, which we suppose no one will attempt to controvert.

The ancient form of the Egyptian religious idea, was substantially the same. Champollion-Figeac makes the following statement in regard to it: "C'était un monotheisme pur, se manifestant exterieurement par un polytheisme symbolique. * * Dans cette religion antique, comme dans toutes celles de l'ancien monde, on remarque trois points principaux savoir; le dogme, on la morale; la hierarchie, indiquant le rang et l'autorite des agents; enfin le culte, on la forme de ces agents."† He proceeds to state that it is quite certain that the Egyptians had arrived at the idea of "l'unite de Dieu," and the immortality of the soul.

Bunsen states that Ammon-Ra alone has the title of "Ruler," that he is called the "Lord of Heaven." Also that the Greeks rightly consider him as Zeus, and the highest god; that, according to Manetho, his name signifies "the concealed God." He also further remarks, that Egyptian mythology, as represented to us in its three orders, appears, on the whole, to have been completed at the commencement of the historical age or reign of Menes. Showing that even beyond the dawn of history, here the religious idea was fully developed with its highest psychological elements; and as he remarks "that the empire of Menes was based upon a venerable and intellectual foundation, which had been laid for many centuries in the valley of the Nile." The dim rays which come down to us from those remote times, show such an intimate relation between the theogony and religious ideas of

*Sanskrit Literature, p. 32.

†Egypte, in L'Univers, Vol. XII, p. 245.

the Hindoos and Egyptians, that their community of origin cannot be doubted; and Bunsen remarks, that "the cradle of the mythology and language of the Egyptians, is Asia."* The points of resemblance between the Hindoo and Egyptian religion and religious worship, are well set forth in a succinct form by Maria Child,† and need not be repeated here.

Turning to China, whose isolated history reaches far back into the centuries of the past, we can also trace the religious idea to the extreme of the historical rays, yet we find the case quite different here from what it was in the nations mentioned, for in the Celestial Empire religion has played but a subordinate part. In India the mystic element was the basis of philosophy and religion, while in China the realistic or practical element predominated. Schlegel remarks: "That in the intellectual character of the Chinese, reason, and not imagination, was the predominant element. * * * Originally, when the old system of Chinese manners was regulated by the pure worship of God, not disfigured as among other nations by manifold fictions, but breathing the better spirit of Confucius, it was undoubtedly in a sound, upright reason, that the Chinese placed the foundation of their moral and political existence; since they designated the Supreme Being by the name Divine Reason." Their ancient books contain no specific doctrine concerning God, but they made frequent mention of One Invisible Being, under the name Chang-ti, which signifies Supreme Emperor. Their interpreters explain Tien, or heaven, as meaning "the firmament is the most glorious work produced by the Great First Cause." Confucius repeatedly recognizes the power over natural laws as residing in Heaven;‡ and the ancient scholiast on the "Doctrine of the Mean" on the words, "What heaven has conferred is called the nature, &c., remarks: "It shows how the path of duty is to be traced to its origin in Heaven, and is unchangeable."

*Egypt's Place in History, Bk. I. Sec. VI.

†Progress of Religious Ideas, I. 142. †Philosophy of Hist. 210.

‡Analects, Bk. VII. ch. xxii. ch. xxiv. Bk. IX. ch. v. Legge's Chinese Classics. I.

Confucius also refers to the more ancient religious observances and practices, as he remarks: "He sacrificed to the *dead* as if they were present; he sacrificed to the spirits, as if the spirits were present;"* showing clearly a belief in the future state in spiritual agencies. He also speaks of the soul as that part of man's being which exercises devotion. It is, therefore, evident that the earliest form of the Chinese religion of which we can glean any notice, contained these four ideas, that of an Omnipotent, invisible Being; a future state; the soul as the seat of devotion; and spiritual agencies,

It is unnecessary for us to refer to the religious idea of the Jews, but we may refer to a thought thrown out by Max Müller, that the monotheism of the Jews and the Arabs point undoubtedly to the Abrahamic age as the time of the divergence of these two lines.

An examination of the Chaldean and Persian religious systems, will furnish substantially similar evidence.

So far, then, as we can trace the religious idea in the history of the nations of the Old World, we find them not only pointing to a time when the races were united and possessed in common some general religious ideas; but also that these were of a much higher grade than those held by the degraded savage tribes to which Mr. Darwin refers as furnishing evidence in behalf of his theory. But it may be said that these were on the same continent, and probably at an early day had more or less communication with each other. Let us, therefore, see if we can trace these fundamental religious ideas in any of the aboriginal nations of the western continent.

Chevalier says: "The religious beliefs and traditions of the ancient Mexicans offers analogies to the cosmogony or theology of the peoples of the old continent far too numerous for the coincidence to be considered as absolutely fortuitous."† Although their religious ceremonies were stained with the horrible practice of human sacrifices, this does not conflict

*Anal. Bk. III. ch. xii. Legge I. 23.

†Mexico Anc. and Mod. I. 144.

with the statement which Chevelier makes. Baron Humboldt* places the origin of this practice in the commencement of the fourteenth century, thus showing it to be a late graft upon their religious doctrines.

They believed in a Supreme God, the Creator and Master of the universe; in a future state, and in a paradise and its opposite. In addition to which they had many traditions and ceremonies bearing a striking resemblance to those of oriental nations. But these are too well known to repeat here, and are not necessary to establish our point, though forming strong cumulative evidence.

According to the older traditions of the Peruvians, the old form of religious belief which prevailed before the introduction of a new form by the Incas, embraced the belief in a Supreme Being, who was called Con, and had no human form or material body, but was an invisible and omnipotent spirit, which inhabited the universe. Belief in the immortality of the soul, was one of their fundamental religious ideas. They believed that after death, the good went to a beautiful, pleasant place; while the souls of the evil were tormented in a doleful place; and, that after a certain time, they would return to their bodies.†

So far, then, as we have any evidence in regard to the early religious belief of these nations, it points to the same origin as the early religions of the old world. And what is of importance to us at this time, it indicates that previous to the dispersion of the races, the status of the religious idea was of a much higher grade than that of many savage tribes at the present day.

We might multiply these evidences and authorities, but our space is too limited, and the religious and literary world are too well versed in these things to require it.

But we will refer to one other fact before we leave this point, which we think Mr. Darwin will scarcely object to on account of its very recent date. In a very able article, trans-

**Vue des Cordilleres*, 94.

†*Peruvian Antiquities*. Tschudi. chap. vii.

lated from the German, and published in the Smithsonian Report for 1867, showing man to have been the cotemporary of the mammoth and reindeer of middle Europe, we find the following statement. And we quote somewhat fully, to show that the writer is not opposed to granting ample time for man's early history.

"The first age of man must doubtless have comprised thousands of years. We know how slow must have been the development of the human race, and from the consideration that each generation stands on the shoulders of the preceding, and civilization is but the product of the past, we can readily apprehend that the process of improvement must have been tardy and difficult in proportion to the distance of time which separates us from the period under contemplation. * * Discoveries have been too few and indecisive to afford us any distinct image of the habits and mode of life which characterized this primordial condition of our race; but it is gratifying to add, that a discovery has at length been made which seems to lead in that direction, and which is the more important, inasmuch as it has given a renewed impulse to explorations of the same kind."

The writer then proceeds to give an account of the finding of the remains of cave-dwellers near Aurignac, in the department of the Upper Garonne. Lartet visited the spot and made a careful examination. He found in the bed of the earth which covered the floor of the cavern, bones of the cave bear, the aurochs, the horse, reindeer, &c., which had neither been broken or gnawed; also instruments of flint-stone; a weapon, constructed of the antlers of the reindeer, which had been sharpened at one end, and eighteen small disks, formed of a white shelly substance (fragments of the cockle), perforated in the middle. Bones found on the terrace, in front of the grotto, had all been fractured, as if to lay bare the marrow. The notches made by the stone hatchets or knives, were distinctly to be seen. Among these bones, the following were recognized: the mammoth, rhinoceros, gigantic deer, great bear, tiger, and hyena of the caves, all extinct

species; and, among those still existing, those of aurochs, horse, ass, stag, reindeer, roe, boar, &c. A number of instruments were also found on this terrace; a hearth and evidences of fire. The mouth of the cavern, at the time it was discovered, was closed with a large flat stone, and the whole was covered, as the writer says, by "the rubbish (debris) which for hundreds of thousands of years had been descending from the summit of the hill." Lartet has drawn the following conclusions from these facts: "The burial place of Aurignac reaches back to the highest antiquity of our race; a proof of which is furnished by the fauna found on the site, and which, in part, has long disappeared from the earth. The depth of the layer of ashes, as well as the great number of animal bones, show, that in front of this grotto *funeral feasts* were held, *and that it has been opened at different times to receive new bodies* until the cavity was filled. On the other hand, the uninjured bones found in the interior of the cave, *evince that offerings have been here consecrated to the dead.* The various implements were deposited, *that the deceased might avail themselves thereof on entering upon another life.*" Seventeen skulls were found in this grotto; but no fragments of pottery, showing the remote antiquity of the remains. Lyell remarks upon these, that, if rightly interpreted, "we have, at last, succeeded in tracing back the sacred rites of burial, and, more interesting still, a belief in a future state, to times long anterior to those of history and tradition."

Here, then, according to the testimony of the scientists, and those who believe in the great antiquity of man, the earliest traces we find of him, show us, at the same time, that he believed in a future state, and, as a necessary consequence, had some idea of an indwelling incorporeal existence. If the *odium antitheologicum* were not so strong, the facts in this case might remind these scientists of an incident recorded in one of the books of Moses: "And Abraham stood up and bowed himself to the people of the land, even to the children of Heth. And he communed with them, saying: If it be your mind that I should bury my dead out of my sight, hear me, and entreat for me to Ephron the son of Zohar, that he may

give me *the cave* of Macpelah, which he hath, which is in the end of his field; for as much money as it is worth he shall give it me, for a possession of *a burying-place* among you."

Abraham was a stranger among the children of Heth, yet he followed the same custom of burying the dead in caves that they did; which shows us that it was not a local custom, but common throughout the east. And now we learn from facts before us, that the ancient inhabitants of the Upper Garonne followed the same custom, and, like Abraham, believed in a future state. Are these coincidents of no value; are the evidences derived from the religious beliefs of widely different tribes at the present day, showing the same thing, and pointing to the same conclusion, of no value? Is the evidence derived from an examination of the earliest religious ideas of the nations of earth, which points to the same conclusion, of no value? Must all be cast aside as worthless, because they cannot be reconciled with Mr. Darwin's theory of development.

If the religious conditions of the various nations and tribes of the earth, at the present time, teach us any thing, they show that the religious status of the race before dispersion, was higher than that of the lower tribes at the present day. If the early history of the religious idea among the older nations, teaches any truth, it shows that before the dispersion the religious rites were simple, that there was a belief in one, or a chief, omnipotent, invisible Deity; in an immortal soul, and a future state. If the earliest remains of man and his customs show us any thing in regard to his religious status, they show us a belief in invisible agencies, in an immortal nature, and in a future state.

If all these taken together, prove any thing, it is that the lower savage tribes are all, without a single exception, in a degenerate state, so far as their religious ideas are concerned; that their remote ancestors, while yet gathered round the original birth-place, had already arrived at a belief in a supreme, invisible Being; that they believed man was possessed of a spiritual nature, and that they looked beyond the grave with hopes of a happier existence. Therefore all these facts stand

in direct opposition to the theory as applied to man; and if we are governed by the evidence we have, we must reject it.*

We will present one more objection to the theory as applied to man, which we deem of more importance than any other brought forward. It is, that this hypothesis is incompatible with the idea of an immortal soul.

There are but three positions in regard to this point which it is possible for the advocates of the theory of development to assume; first, that man's existence ends with the death of the body; second, that development applies only to the physical nature, the soul being a new creation; third that the soul comes into existence through the law of development.

If the first is assumed, then the Christian world is right in its charge, that the theory is opposed to religion, and that it contradicts the belief which all nations have held from the earliest traces of man's existence down to the present time. If it is admitted that this must be the necessary result of this hypothesis, we have no further reason to argue the question; the world must forever give up its most cherished hopes, and we must admit we are but brute beasts, living, dying and becoming extinct; or we must wholly reject it as incompatible with our self-consciousness. What a cold and lifeless view of man is this; that the glittering but inanimate particle of sand which rolls on in its emotionless existences, should behold—as it were—generation after generation of noble beings, with far-reaching powers of mind, arise from the dust, live a brief space, and then dissolving, like the airy phantom of a dream, sink back to earth, extinct and forgotten in the broad universe. It were better to be a rolling pebble, washed from shore to shore, now sinking deep in a watery grave, now rising high on the mountain crest, yet living on, a pebble still. Such a materialistic view of man, would make earth but a mighty stage, on which God exhibits his creative power and skill, for the amusement of himself or other beings; where the same scene of birth, misery, and death, is being

*We would call attention here to the remarkable words of Paul, *Rom. I* : 18—32.

continually enacted. How unworthy of God and man is such a view as this.

The second view supposes a second creation, or rather continued creations, and is directly in conflict with the hypothesis of evolution—it is an admission of its inability to account for the production of man. It requires a double creation to one species, or to each individual—for this view may be that after the species has reached a certain status, the soul is made a specific character; or that a soul is created for each individual—thus destroying the simplicity of the theory. A resort to this expedient to sustain the theory, is a virtual abandonment of it—for it is as reasonable to suppose a second or third creation at any other point in the ascending scale; and it is far more reasonable to suppose man's entire nature to be a separate and distinct creation, thus confirming the Holy Scriptures. The theory must reach through the scale to the last round; the advocate of it must maintain that the whole of man, physical, mental, and moral, has been developed from a lower form, or, so far as man is concerned, it must fall to the ground.

This is evidently the position taken by Mr. Darwin, in the work under consideration, and although it brings him to a hiatus, across which it can never bear him, yet it is more consistent than either of the other views. Let us, therefore, examine it and see if it will stand the test of reason.

Mr. Darwin presents the following challenge: "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 italics are our own, and we desire to call attention to the language, as we accept the challenge.

Any belief that can properly be called a religious belief,

**Desc. Man.* II. 378.

must embrace the doctrines of a future state and individual immortality, or the immortality of the soul. This Mr. Darwin indirectly admits.* Therefore it follows that a theory which is incompatible with the idea of the immortality of the soul, is more irreligious than the one that is not—the two being equal in other respects. It will be conceded that immortality, as used in this connection, has no meaning, unless it applies to the individual; unless it signifies the immortality of each individual soul. If the hypothesis of development applies to the soul, it must be upon the same principles that it applies to the instinct of animals, and to man's physical nature; for to suppose a change, is virtually giving up one theory and introducing another; and if a change of the law is admitted, we may with equal propriety carry back this change to man's origin, and we are then just where we started.

The origin of the soul, we know, is a difficult question under any theory; and we are aware that there are points connected with it which we cannot explain; this is conceded; but life itself is yet an unsolved mystery. We state it as our opinion, that the soul is born of the parent as well as the body; but how, we cannot say, nor can we say when it becomes an immortal entity in the child, but exactly the same difficulty arises under Mr. Darwin's theory, or any other theory of development as applied to man in his entirety. There is, however, one difference largely in favor of the idea that man is not developed from a lower form; but that he was in the beginning endowed with all his elements of being. It is this: being made subject to the law that like produces like, and his powers of reproduction embracing the soul as well as body, the element of immortality passes to his offspring; and, like many other parts of his nature, arising in the individual at a certain stage of its development. How this arises in the new being, it is true, remains unaccounted for, as it is impossible for us to imagine that immortality appears by degrees; it is also difficult to determine how individual life arises, and, as we have already said, Mr. Darwin's theory is encumbered

**Desc. of Man.* I. 65, and II. 378.

with the same difficulty. But there is another formidable objection that applies to the theory of development, which does not attach to the opposite view. Reason, or any other other faculty, may be possessed in a greater or less degree, but the property (if we may so term it) of immortality is not subject to gradations; it is an entirety that is not subject to subdivision. If immortality is not acquired in the individual as an entirety, the existence of the soul, as well as of the physical nature, is not attained, a new individual life is not completed; in other words, if reproduction, in man, does not produce the soul with immortality, it does not produce the individual. But, in Mr. Darwin's system, the case is quite different; the specific characters are developed by minute gradations, but the individuals attain their complete form; the character of immortality is acquired gradually, natural selection in each generation bringing it nearer and nearer to the maximum. Hence we must suppose, in accordance with this theory, that although individual life and functions are complete, yet immortality is, or was, but partially developed, which involves a manifest absurdity. Lest we may not be clearly understood, let us state this in a somewhat different form.

Specific characters, according to Mr. Darwin, are developed by natural selection from small variations, through a long series of generations; immortality is a specific character, therefore immortality is developed from a small variation through a long series of generations. Hence one generation must possess a minute immortality, the next a little greater immortality, and so on, to the maximum; but the maximum is eternity, hence it will take eternity for its complete development. The tendency to lengthen the term of the existence of the soul, produces at first a little longer life, this is gradually extended in each succeeding generation; this idea only is compatible with the theory. Are we, then, to believe that there are souls passing across the boundary line between the seen and the unseen world, with high hopes of eternal life and happiness, that will, after a few cycles have rolled their rounds, cease to exist? Are we to believe the walks of the

future life will be lined by an endless series of spiritual graves?

If the law of natural selection requires centuries after centuries to develop the power of speech, certainly it cannot span the length of eternity with life at one leap.

We are, therefore, compelled to believe that Mr. Darwin's theory of development by natural selection, or any other theory of development, as applied to man, is inconsistent with the Christian religion, and also with any other religion that embraces in its system the idea of the immortality of the soul.

In closing we present the following as the summary of our view on these questions.

That specific characters of animals and vegetables—as at present limited—are permanent, and reach back to original creations, we admit is doubtful; there are many reasons to cause us to hesitate before asserting this dogmatically.

That all animals have not been developed from one primordial form, we think is evident. The truth, in all probability, lies somewhere between these two extremes.

That natural selection, alone, will not account for the development of specific and other characters, we think is clear.

That man was brought into being by a distinct creative act; and that, taking his whole being into consideration, he cannot be classed as a species, or even family, of the animal kingdom, we are compelled to believe, the opinion of naturalists to the contrary notwithstanding.

The idea thrown out by Geoffroy St. Hilaire in "*Hist. Nat. des Regnes Organiques*," is probably the correct one; that the human family is a distinct kingdom. If we adopt this idea, then we have a beautifully ascending scale in the terrestrial creation, which may be stated substantially as follows: inorganic matter, with one element of being; the vegetable kingdom, with two elements of being; the animal kingdom, with three elements of being; and the human kingdom, with four elements of being; the last forming the link between matter and spirit, capable of existence on either side of the boundary which separates the two worlds.