

ARTICLE VIII.

MIRACLE, LAW, EVOLUTION.¹

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MIRACLES AND LAW.

I DO not propose to discuss the reality of the miracles recorded in the Bible. Those who deny their possibility, as well as many who believe in them, look upon miracles as generically different from those occurrences which are said to take place in obedience to the laws of nature. There certainly is a difference. What is it? Evidently it is not in the degree of power required; for raising the dead is a less thing than the birth and growth of an individual. It is less to set in motion a watch that has stopped than to make one. Causing the widow's oil and meal to increase was a small matter in comparison with providing daily food for the millions that cover the earth.

Nor is it that miracles are intrinsically more wonderful than those things which we regard as the effect of law. Nothing is more common, or less excites our surprise, than the working of the law of gravitation; yet, what is more wonderful than a force which, according to Laplace, travels more than fifty million times faster than light, which itself moves with the inconceivable velocity of nearly two hundred thousand miles in a second?

Were, to-night, in some far distant constellation, another sun called into existence, ages would pass before its light could reach our earth, but only a few seconds would elapse before the earth would feel its presence.

Nor is the velocity of gravitation the only or the great-

¹ A Paper read before Vassar Brothers Institute, Poughkeepsie, N. Y.

est cause for wonder. Another property of this force far surpasses that. I mean its ability to adjust itself with omniscient accuracy to every change in mass, or position, of bodies however widely separated.

The adjustment of position and movement of every member of our solar system, and, I may add, of the universe, to the mass, distance, and position of that new sun would at once begin, and, in due time, complete itself with an exactness which no human measurements can hope to equal. And since every atom is attracted by every other atom in the universe, it is a sober fact that the fall of a sparrow is registered in every star fifty millions of times sooner than light can speed its way across the abyss that separates our earth from them. Can any miracle be more wonderful than that?

We may extend the comparison as far as we please, and we shall find in all cases that miracles differ from what we regard as the effect of law, neither in the amount of power required nor in their intrinsic wonderfulness. We must, therefore, seek for some other characteristic by which they may be distinguished. So far as I can see, this lies in the continuity of the one, and the absence of continuity of the other. In a world where no vegetation existed, the production of an oak would be a miracle. To us it is merely the outworking of law, because it goes on continuously. The first plants and the first animals came into existence by a miracle. They continue to come into being, and now it is law. In every law the first of the series was a miracle, and, had we been present, would have excited our profound wonder. But often repeated, it ceases to excite surprise, yet the thing itself is unchanged.

The dead rising, the deaf hearing, the blind seeing, when commanded by Christ or in his name, were miraculous occurrences. But if this had continued, if every time a dead man was told in that name to rise, or a deaf man to

hear, or a blind man to see, he had obeyed, no more surprise or wonder would be excited than now that men wake from sleep. It would be simply the way in which Nature works.

So far, then, as I can see, the peculiarity of miracles lies in their uniqueness. Each stands by itself. A miracle may be represented by a point; law by a line; successive points make a line. Miracles indefinitely repeated crystallize into law. In briefest phrase, law is continuous miracle. Those, therefore, err who rank miracles as higher or more divine than law; for, as two are more than one, and four more than three, and a series greater than any one of its terms, so law is greater and intrinsically more wonderful than miracle. Neither admits of explanation other than the will of that First Cause which lies back of all.

MIRACLES AND EVOLUTION.

What, it may be asked, have these to do with each other? Are they not catch-words, that represent the opposite poles of modern thought? I ask your patience and attention, and, when I have done, I hope it may be clear that they do have something to do with each other, and that, if they represent opposite poles of thought, they help to weld fragmentary truths into one consistent whole.

Christ is represented in the Bible not only as a worker of miracles, but as the informing spirit that produced all things which exist, or ever did exist,—the Creator.

Those who believe this,—and that includes all who regard the New Testament as inspired,—will, I think, agree with me when I say that we may reasonably expect to obtain from the study of Christ's methods, when performing his miracles, some light as to his course when acting in his capacity of Creator. Just as when we find certain peculiarities of style or diction in one of an author's books, we expect to find them to some extent, at least, in all his

works; so, if we find some peculiarity, some way of doing things, that runs through all Christ's miracles, it would be reasonable to look for it in his mode of doing his creative work. And I think we are safe in saying that, of two theories as to how certain things were done, e.g., how present animals came into the world, that which harmonizes best with his methods when working his miracles would be the most likely to be true.

A brief study of the accounts which we have, will suffice to show that, in Christ's miracles, natural means, laws, and powers go just as far as is possible for them, and then the supernatural comes in and does what they cannot do. When, for example, at the marriage in Cana, Christ would supply the lack of wine, there was the water, the jars, the servants, all in the usual way. He bade the servants fill the jars with water. They did that, and it was as far as natural means could go: then came in his power, and added the components needed to make the water wine. This done, the supernatural ceased, the natural again came into operation; for it was the servants that drew out the wine, and bore it to the governor of the feast.

Would he feed the hungry thousands? He commanded them to sit down, took the bread and fishes, broke them, and gave to the disciples to distribute. Thus far all was in accordance with law, and it was as far as law could go. At that moment, the divine power came in and did the one thing impossible for Nature: it caused the bread and fishes to multiply.

Even here he kept as close to the natural method as was possible. Would we have an increase in our stock of food, we take wheat, and it produces wheat; or barley, and it produces barley. In all cases by natural law, we take a portion of that of which we would have more, and it multiplies. So here. He would have more bread, he took that, and it produced its own kind. He would have more

of the fishes, and the animal fabric grew under his hands, and from what he had, came more of the same kind. It was like producing like,—in a strange, abnormal way, it is true, but no more inexplicable, in the last analysis, than is now what we call the natural process by which we get our food.

After the increase of the loaves and fishes, there was no further need of miracle: all else proceeded in the usual way. The multitude ate and were refreshed in the ordinary manner, and the disciples gathered up the fragments.

Would Christ supply tribute money for his disciples? He told them what they could have learned from no power in Nature, viz., where to throw the line to catch the fish which had seized the glittering coin, as it sank in the water of the lake. Up to a certain point, all was natural, the hungry fish, voraciously seizing the sinking coin, the line, the fisherman. The one thing needed to complete the transaction, the omniscience which notes the fall of a sparrow, was supplied by Christ. The disciples did the rest. They took the money and paid the tribute.

When he raised the dead child, he brought back life and health, but he commanded those present to give her food. She got life from him, but strength she was to get in the ordinary way.

When he restored Lazarus to his sisters, he bade the Jews standing around roll the stone away from the tomb. Then they reached their limit. At this instant of absolute helplessness, when Nature and man could do nothing, he interposed and gave life to the dead body; but it was the living Lazarus himself that walked out of the sepulcher, and it was those standing by who loosed him from the grave-clothes. Christ's exercise of miraculous power, here also, was confined to the one thing law could not do,—the restoration of life.

All the other miracles, so far as we can judge from the

very brief records, are marked by the same characteristic.

Hence, I think, we may conclude that the divine method in miracle-working was to do only that which Nature, with her laws and powers, could not do, and then to let her do the rest. What was already in existence was invariably used, as far as it could be applied, and to this was added only that which was necessary to complete the transaction.

Hence it seems reasonable to infer that, in his work as Creator, he used whatever was nearest to his purpose, and exerted power above Nature only to do what she could not. As to the rest, he left it to the outworking of natural causes.

Now for the application.

The world of to-day contains many thousand species of plants and animals. There is indisputable evidence that the present is only the last of a long series of "populations," each differing from its immediate predecessor. Each antecedent population was of a lower grade than its successor, until at last we reach the dawn of life, where only the lowest orders are found. Or, conversely, starting at the beginning of life, there were for millions of years radiates, articulates, and mollusks, but no vertebrates; then for other millions, there were water vertebrates, but none on the land; then for thousands of centuries, land vertebrates but no mammals; then for another long period, mammals, but none of existing kinds; and, lastly, those now living.

One example will suffice, although it reaches back but a little way, yet far enough for my present purpose.

Many thousand years ago, there lived an animal which geologists have named *Orohippus*, or the Mountain Horse. It was about the size of a very small Shetland pony, which in many respects it resembled. Still it was not a horse, for it had four little hoofs on each fore foot, and three on each of its hind ones. The genus lived many thousand

years, each generation like its predecessor; but at last, "from some cause unknown to science," a new animal, in fact a new genus, appeared, different in some respects from the Orohippus, and approximating somewhat more to the present horse, yet not a horse, for on each of its feet were three hoofs. The Mesohippus, for so geologists have named it, also kept on for many generations, producing at every birth only its own likeness. After a uniform course, for we know not how many thousands of years, there appeared another creature, the Miohippus, very much like its predecessor, but approaching more nearly to the horse. The middle hoof was larger, indicating a promise of an animal in which the two side hoofs should disappear. The Miohippus lived from generation to generation its uneventful life, one monotonous series of like producing like, till at last another animal made its appearance still in the same line of progress; the side hoofs remained, but of diminished size, while the teeth became more like those of the horse. This genus (Protohippus) ran its course, and then another (Pliohippus) came into existence with greater resemblance to the horse, for it had single hoofs, and teeth still more equine. Next and last came the horse, the living servant of man.

It is not possible as yet to trace the pedigree of any other animal as satisfactorily as this; there is, however, sufficient evidence to induce the belief that there has been a similar process in all species.

The question is how to explain these facts. Scarce any one doubts that the first life came direct from the Creator. It is in regard to the subsequent populations that biologists differ. The fact of there having been such is beyond dispute. It is as to the manner of the successive genera coming into existence that there is question. Only two suppositions are conceivable. Either each species was made *de novo* by the Almighty, or it was born of some preceding

creature of a different species. The former is the older theory, and claims to be in exclusive harmony with sacred writ. It teaches that God made, e.g., the Orohippus, from earth, air, and water, and gave it life; that later, from more of the same raw materials, he made the Mesohippus; and yet later, from more earth, air, and water, he made the Miohippus; that, after another long interval, once more from earth, air, and water, God made the Protohippus, and so on down to the present horse. There was a succession of creations, but no genetic relation between them.

The other theory also holds to the belief in a Creator. It, however, teaches that only the first kinds of plants and animals were made direct from inorganic material. It thus accounts for the first links in the chain of life, but claims that, from these, others of new and different kinds were produced at some subsequent time, and from them others, and so on down through many stages to the present. It holds that the law of like producing like was then as now the law, till time and environments were ready, perhaps after thousands of generations, and that then "some cause unknown to science," an agnostic euphemism for a more or less direct act of the Creator, so changed the factors in what may be called the personal formula of the embryos,¹ that they grew up into animals of species till then unknown. Thus, for example, "some cause unknown to science" so changed the embryo in an Orohippus, that it was born a Mesohippus; and, after many thousand generations of the new species, like begetting like for all that time, the "cause unknown to science" so changed the embryo a second time that from the Mesohippus was born a Miohippus, as if now from a panther a lion should be born, and thus the process went on.

The first of these theories, a creation *de novo* for each

¹ "The transition from type to type was done during foetal life." Cope, "Origin of the Fittest," p. 276.

new species, is as unlike the course of Christ in his miracles as possible. He employed what was already in existence and nearest to his purpose, and put forth the least possible amount of divine, or extra-natural, power that would suffice to adapt the same to his design. The production of new species by changes in preceding forms nearest related, appears to be in perfect harmony with his method while on earth as Son of man.

Such derivation of new species from older species is the essence of evolution; and this, whether the evolution was by imperceptible degrees, as taught by Mr. Darwin, or at once, *per saltum*, a bound, as it were, at one birth, or at most, in a few successive births, from the old to the new. Such abrupt changes seem most in harmony with the teachings of the miracles. In these the thing to be done was done not imperceptibly, but at once.

So far as I can read the record of geology, its evidence also is in favor of abrupt changes. The links in the pedigree of the horse are well defined; there is not an imperceptible, long-continued transition from genus to genus. There was the Orohippus, and, after a time, suddenly the Mesohippus appears; again, there was generation after generation of the Mesohippus, and then, all at once, is found the Pliohippus, and so on.

In spite of an original and very strong bias the other way, biologists now admit the occurrence of sudden starts upward, jumps in the progress of development. Professor Huxley, in his "Lay Sermons," says: "We believe that nature does make jumps now and then" (p. 297). May we not ask, Is there conclusive proof she ever does otherwise? He adds: "Mr. Darwin embarrassed himself with the aphorism which turns up so often in his pages, '*Natura non facit saltum.*'"

Professor Cope, "Origin of the Fittest," says: "The results of such successful [embryonic] metamorphoses are

expressed in geological history by more or less abrupt transitions, rather than by uniformly gradual successions" (p. 123). It is difficult to avoid the belief that, but for theoretical reasons, biologists, in reference to new species, would adopt the motto, *Natura semper facit saltum*. Be this as it may, evolution gives us no aid in accounting for the changes. The survival of the fittest, however important in determining what varieties shall survive, gives no assistance in determining how and why the variations occurred. As Professor Huxley well says: "What the hypothesis of evolution wants is a good theory of variation." At present it can be attributed to nothing more definite than "some cause unknown to science." Miracles are equally well explained in the same way.

The believer in the Bible will ask: "But does not this conflict with the story of creation in Genesis? If Genesis be true, is it possible that present species of animals are descended from other species, and back through many steps to the first stages of life upon our globe?" But wherein is the contradiction? Genesis says only that God made, or created, the various creatures named.¹ As to how he did it, there is absolute silence; hence contradiction is impossible.

The chief interest most persons have in evolution pertains to man's origin. As to his higher part, the soul, few will be found to deny that it came direct from God.

The doubt is as to his body. Did God form it directly from the ground and atmosphere, molding the mixture to his purpose, and then give it life? Or did he take, in embryo, or after birth, some animal nearest to his design, and enlarge its form, shorten its arms, change its hand-like

¹ Genesis speaks only of the plants and animals of this end of creation. Grass, herbs, and fruit-trees, "great whales" and fowl, cattle and beasts and creeping things, do not describe either the flora or fauna of the earliest ages. Hence Genesis neither affirms nor denies the truth of evolution.

feet till fitted for man's upright position, and enlarge the capacity of the skull to fit it for the large brain which was to be the facile instrument of the soul, the go-between of the soul and the body? Whichever really was the mode of man's creation, there can be, I think, no doubt that the latter is most in harmony with Christ's methods when exercising his power in the miracles. And, as for the question of dignity, surely matter which under the divine hand had been prepared and refined in all the infinitely delicate machinery of a living body, though that of a brute, was, to say the least, as worthy of man as that which had never since its creation received the divine touch, but had lain, raw and crude, beneath the feet of man's predecessors.

Then there is the creation of Eve. God undoubtedly might have made her as he did Adam. But in accordance with the law that runs through the miracles, it would seem probable that God took material nearest fitted for his purpose, and in harmony with a method found all through nature, propagation by fission, caused from a part of the man a woman to grow. It seems to me that this was closer to nature's methods still in operation—like producing like—than such changes in another simian, as occurred when one changed to a human being, and became in the sense which we all understand, but shall never comprehend, a living soul.

It will seem strange to many that the study of the miracles of the Bible has led to the support of evolution; so strange, that I fear it may hinder their giving due weight to the argument. But, although some advocates of evolution may appear to desire to use this theory to shut the Creator out of his own world, it seems to me that species produced by modification of previous species show his hand as unmistakably, nay, I would say, show it more clearly than if molded direct from earth, air, and water.

GOD'S METHOD IN ALL THAT HE DOES.

The above was written several years ago, but subsequent reflection has confirmed my belief, not only that the principle it sets forth is true, but that its application is as wide as God's works. Briefly put, it is that the supernatural does the thing needed when, and only when, to the natural it is impossible. The action of the former is brief but determinative; that of the latter required almost infinite time. The former created the heavens and earth, and gave them their laws. Gravitation and all other forces known to science would, if left to themselves, have carried every atom into one central body, on which life would have been forever impossible. The supernatural prevented this by segregating the original mass into as many smaller ones as there were to be solar systems, and by imparting tangential motion. Law again, left to itself, came, in the case of our solar system, marvelously near plunging it all into the sun, and thus making a world like ours impossible. In fact, all but a bare one-seventh of one per cent was left, out of which to make all the planets and their satellites. Perhaps mere centrifugal force would have sufficed to prevent the final catastrophe; but that could not have caused the remainder to break up into rings of the right size, and at the proper distances apart, to form the present planets. Admitting that natural law was sufficient to bring our earth so far towards its present condition that waters covered the land and filled the seas, and that the temperature had fallen to a point at which some form of life was possible, there was a fatal obstacle which natural law was powerless to remove. The air was poisonous with carbonic acid gas, for it contained in that form all the carbon now in coal, lignite, graphite, mineral oil and gas, and in plants and animals. In making this poisonous gas, the carbon took up two and two-thirds its own weight of oxygen,

enough of itself to make animal life impossible. Till this was changed, organic progress could not proceed. Plants alone possess the power, with the help of sunlight, to tear the oxygen and carbon apart, and thus transform them into life-supporting elements. But there were no plants, and how were they to come into existence? It was absolutely impossible from natural law. Nature left to itself, all hope of a world inhabited as this, was forever estopped. But that was not to be. The supernatural came in, and the waters swarmed with minute algæ. Plants alone could not long carry on the process of purification; animals were needed to complete the cycle; and from the same efficient cause the waters were filled with animals of corresponding rank,—the protozoa of geologists. With these new organisms came a new law, viz., that of reproduction, keeping up the supply of plants and animals, and rendering needless the supernatural till another necessity arose.

After millions of years it came. The air and water too, thanks to the work of those algæ and protozoa, had become so much better that a long step towards present living forms was possible. But nature could only go on producing the old ones. To rise higher it needed help outside of itself. It came, for in due time the waters swarmed with higher types, not imperfect or rudimentary, but fully perfected after their kind. Geologists call them Radiates, Mollusks, and Articulates.

Nature thus enriched went on with their aid improving the quality of the air and waters. At length these became ready for another forward step, the production of Vertebrates, the last and highest type. Nature *again had* reached its limit, and once more the supernatural acted, and fishes came into being.

I might go on, but this will suffice. I will only add that from that time to the present the same principle holds good. Others have called it Evolution *per saltum*, which,

though out of harmony with hypothetical and as yet undiscoverable fossils though long sought for, is the only kind of evolution that agrees with the unforced story of the myriads of real fossils which have been found.

In the spiritual world, too, the natural and the supernatural both act, but the latter does only that which the other cannot. The truth is brought to the individual by the "foolishness of preaching," and then the Holy Spirit makes it effectual, after which he is to work out his own salvation, and supernatural assistance is vouchsafed only when it is needed. Is the world to be converted? Missionaries are sent, Bibles are printed and distributed all in the ordinary way, and all else done that human agency can do, and this would be the end, but that here the supernatural comes into action, and causes the heathen to turn from their idols. As to the Bible, here, too, is found the same principle of work done by the supernatural when it could not be done in any other way. It opens with a brief account of prehuman events and occurrences, some thirty items in all, arranged in a certain order. If all these are true, and their order correct, this chapter must have been due to the supernatural, or, in common language, it was a revelation. The rest of the book tells of God's work in the moral world. Much of it might have been written as are other books, from the writer's own observation, or that of others, or from tradition, oral or written, to which he gave credence. To this belong the historical parts. To write, for example, the story of Moses' life, and record the miracles he saw and the words he heard from God, though themselves supernatural, came within the province of the natural; and so all through the Old Testament. The historical part of the New Testament came from eye and ear witnesses. There was no need of a revelation to tell the evangelists what they themselves had seen and heard. For this, good heads and honest memo-

ries sufficed. But there are other parts to which all the rest is only subsidiary, and in which the supernatural was required. It alone accounts for those passages which set forth God's character, and his purposes toward man, for it was long ago settled that man by searching cannot find out God. Then there is the development of the plan of salvation, and there are the prophecies. All these with the story of creation must have been made known to the writers by a power wiser than human.

This twofold authorship, the divine and the human, casts light on the vexed question of inerrancy. It seems reasonable that human authorship should be accompanied with human fallibility and an examination of the record shows this to be the fact. There are variations and discrepancies in the accounts of the four evangelists which no one has yet been able to reconcile, nor can any one make Matthew's declaration true that all the generations from Abraham to David are fourteen, and from David to the captivity are fourteen, and from that to Jesus Christ are fourteen, and so of many things in the Old Testament.

On the other hand, we cannot avoid believing that whatever came from the supernatural must be free from marks of human imperfection. Although the Bible has been searched as no other book has been, no discrepancy or contradiction has been found in those parts which set forth the purpose for which I have stated the supernatural came into action. There is on all these points, extending as they do through sixty-six books, by men in the highest as well as the lowest walks of life, absolute unanimity.

This principle which we first studied in the miracles, but which we find running through all God's works, shows a unity of plan befitting a unity of origin.