

Strictly speaking, Evolution, whether it progress by saltation or by minute and fortuitous increments, as we are wont to regard them, is, in the last resort, a kind of special creation, and, reason as we may, we can view it in no other light. The same may be said of spontaneous generation, or the Evolution of organic from inorganic matter. For secondary or derivative creation implies Evolution of some kind, as Evolution, whether rapid or operating through untold æons, demands, in the last analysis, the action of intelligence and will, and presupposes what is termed creation in a restricted sense, that is, formation from preëxisting material. Our primary intuitions, especially our ideas of causation, preclude us from taking any other view in the premises. As reason and revelation teach, it was God who created the materials and forces which made Evolution possible. "It was Mind," as Anaxagoras saw, "that set all things in order" — *πάντα διεκόσμησε νόος*; that from chaos educes a cosmos and gave to the earth all that infinitude of variety and beauty and harmony which we so much admire.

But not only is Evolution a theory which is in perfect accord with science and Scripture, with Patristic and Scholastic theology; it is likewise a theory which promises soon to be the generally accepted view; the view which will specially commend itself not only to Christian philosophy, but also to Christian apologetics as well. We have seen some indications of this in the already quoted opinions of such eminent Catholic authorities as Monsabré, D'Hulst, Leroy, De Lapparent and St. George Mivart.

Eminent Catholics on Evolution.

Geoffroy Saint-Hilaire, Cuvier's great rival, and a man of profound religious sentiments, looked upon the succession of species, as disclosed by Evolution, as "one of the most glorious manifestations of creative power, and a fresh motive for admiration and love." The noted Belgian geologist, D'Omalius d'Halloy, as distinguished for his loyalty to the Church as for his eminence in science, declares: "It appears to me much more probable and more conformable to the eminent wisdom of the Creator, to admit that, just as He has given to living beings the faculty of reproducing themselves, so, likewise, has He endowed them with the power of modifying themselves according to circumstances, a phenomenon of which nature affords us examples even at present."¹

¹ "Sur Le Transformisme," Bulletin de l'Académie Royale de Belgique, 1873, tiré à part, p. 5.

The illustrious paleontologist, M. Albert Gaudry, a member of the French Institute and a devoted son of the Church, in speaking of the plan of creation, "où l'Être Infini a mis l'empreinte de son unité," expresses himself as follows: "Les paléontologistes ne sont pas d'accord sur la manière dont ce plan a été réalisé; plusieurs, considérant les nombreuses lacunes qui existent encore dans la série des êtres, croient à l'indépendance des espèces, et admettent que l'Auteur du monde a fait apparaître tour à tour les plantes et les animaux des temps géologiques de manière à simuler la filiation qui est dans sa pensée; d'autres savants, frappés, au contraire, de la rapidité avec laquelle les lacunes diminuent, supposent que la filiation a été réalisé matériellement, et que Dieu a produit les êtres des diverses époques en les tirant de ceux qui les avaient précédés. Cette dernière hypothèse est celle que je préfère; mais qu'on l'adopte, ou qu'on ne l'adopte pas, ce qui me paraît bien certain c'est qu'il y a eu un plan. Un jour viendra sans doute où les paléontologistes pourront saisir le plan qui a présidé au développement de la vie. Ce sera là un beau jour pour eux, car, s'il y a tant de magnificence dans les détails de la nature, il ne doit pas y en avoir

Commenting on this question, the learned Belgian Jesuit, Father Bellinck, asks: "What matters it if there have been creations prior to that which Moses describes: what matters it whether the periods required for the genesis of the universe were days or epochs; whether the apparition of man on the earth was at an earlier or later date; whether animals have preserved their primitive forms, or whether they have undergone gradual transformations; whether even the body of man has experienced modifications, and, finally, what matters it whether, in virtue of the Creative Will, inorganic matter be able or not to produce plants and animals spontaneously?"

"All these questions are given over to the disputes of men, and it is for science to distinguish truth from error."¹

These are pertinent questions. What matters it, indeed, from the standpoint of Catholic Dogma, if they are all answered in the affirmative? If science should eventually demonstrate that spontaneous generation is probable, or has actually occurred, or is occurring in our own day, what matters it? The Fathers and Schoolmen found no difficulty in believing in abiogenesis, and most of them, if not all of them, believed in it so far as it concerned the lower forms of life. More than this. As we learned in the beginning of our work, spontaneous generation was almost universally accepted until about a cen-

moins dans leur agencement générale." "Les Enchaînements du Monde Animal dans les Temps Géologiques," introduction, p. 3.

¹ Vid. "Revue des Études Historiques et Littéraires," 1864.

tury ago. Materialists then bethought themselves that abiogenesis might be urged as an argument in favor of Materialism. Theologians, in their eagerness to answer the objection, denied the fact instead of denying the inference. Later on, men of science discovered that so far as evidence goes abiogenesis is not a fact, and, still later, it dawned upon a few theologians that whether a fact or not, it is quite immaterial so far as theology is concerned. Whether non-living matter may ever give rise to living matter, science is unable to state with absolute certainty, but should it ultimately be shown that spontaneous generation is a fact, we should simply say with the Fathers and Doctors of the Church: The Creator gave to inorganic matter the power, under suitable conditions, of evolving itself into organic matter, and thus science and Dogma would be in harmony.¹

¹The illustrious Gladstone referring to this subject in his admirable introduction to the "People's Bible History," writes as follows: "Suppose for a moment that it were found, or could be granted in the augmentation of science that the first and lowest forms of life had been evolved from lifeless matter as their immediate antecedent. What statement of Holy Scripture would be shaken by the discovery? What would it prove to us, except that there had been given to certain inanimate substances the power, when they were brought into certain combinations, of reappearing in some of the low forms which live, but live without any of the worthier prerogatives of life? No conclusion would follow for reasonable men, except the perfectly rational conclusion that the Almighty had seen fit to endow with certain powers in particular circumstances, and to withhold from them in other circumstances, the material elements which He had created, and of which it was surely for Him to determine the conditions of existence and productive power, and the sphere and manner of their operation."

In his "Psychology," Rosmini has a couple of chapters on spontaneous generation and the animation of the elements of matter, which the reader will find curious and interesting. Referring to spontaneous generation as an argument in favor of

Faith Has Nothing to Apprehend from Evolution.

Suppose, then, that a demonstrative proof of the theory of Evolution should eventually be given, a proof such as would satisfy the most exacting and the most skeptical, it is evident, from what has already been stated, that Catholic Dogma would remain absolutely intact and unchanged. Individual theorists would be obliged to accommodate their views to the facts of nature, but the doctrines of the Church would not be affected in the slightest. The hypothesis of St. Augustine and St. Thomas Aquinas would then become a thesis, and all reasonable and consistent men would yield ready, unconditional and unequivocal assent.

And suppose, further, that in the course of time science shall demonstrate—a most highly improbable event—the animal origin of man as to his body. There need, even then, be no anxiety so far as the

Materialism, he says: "If the fact of spontaneous generation does really occur in nature, it does not follow, as Cabanis maintained, that pure matter of itself passes into life. On the contrary, we must say that the matter itself was animate, and that the principle of life which was in it, operating in its matter, produced organism. In this way this great fact would be the most manifest proof of an immaterial principle." Again: "Spontaneous generations would never prove that matter was dead; on the contrary, they would prove that it was alive." Further on he declares that "if there should suddenly leap forth from the ground a full-grown mastodon, or a rhinoceros, all that would legitimately follow from the fact would be, that there was a vital principle in the ground, and that this was the secret organizer of these huge bodies." Book IV, chap. xiv.

As for Pantheism, he asserts in Book IV, chap. xv: "It is altogether indifferent whether we admit that the animate substances in the universe are more or fewer, some or all, so long as we admit that they are created, and, therefore, altogether distinct from the Creator, Pantheism is excluded."

truths of faith are concerned. Proving that the body of the common ancestor of humanity is descended from some higher form of ape, or from some extinct anthropopithecus, would not necessarily contravene either the declarations of Genesis, or the principles regarding derivative creation which found acceptance with the greatest of the Church's Fathers and Doctors.

Mr. Gladstone, in the work just quoted from, expresses the same idea with characteristic force and lucidity. "If," he says, "while Genesis asserts a separate creation of man, science should eventually prove that man sprang, by a countless multitude of indefinitely small variations, from a lower, and even from the lowest ancestry, the statement of the great chapter would still remain undisturbed. For every one of those variations, however minute, is absolutely separate, in the points wherein it varies, from what followed and also from what preceded it; is in fact and in effect a distinct or separate creation. And the fact that the variation is so small that, taken singly, our use may not be to reckon it, is nothing whatever to the purpose. For it is the finiteness of our faculties which shuts us off by a barrier downward, beyond a certain limit, from the small, as it shuts us off by a barrier upward from the great; whereas for Him whose faculties are infinite, the small and the great are, like the light and the darkness, 'both alike,' and if man came up by innumerable stages from a low origin to the image of God, it is God only who can say, as He has said in other cases, which of those stages may

be worthy to be noted with the distinctive name of creation, and at what point of the ascent man could first be justly said to exhibit the image of God."

But the derivation of man from the ape, we are told, degrades man. Not at all. It would be truer to say that such derivation ennobles the ape. Sentiment aside, it is quite unimportant to the Christian "whether he is to trace back his pedigree directly or indirectly to the dust." St. Francis of Assisi, as we learn from his life, "called the birds his brothers." Whether he was correct, either theologically or zoologically, he was plainly free from that fear of being mistaken for an ape which haunts so many in these modern times. Perfectly sure that he, himself, was a spiritual being, he thought it at least possible that birds might be spiritual beings, likewise incarnate like himself in mortal flesh; and saw no degradation to the dignity of human nature in claiming kindred lovingly with creatures so beautiful, so wonderful, who, as he fancied, "praised God in the forest, even as angels did in heaven."¹

¹ Kingsley, "Prose Idylls," pp. 24 et seq. Ruskin in referring to the matter in his "Aratra Pentelici," expresses himself with characteristic force and originality. "Whether," he says, "your Creator shaped you with fingers or tools, as a sculptor would a lump of clay, or gradually raised you to manhood through a series of inferior forms, is only of moment to you in this respect, that, in the one case, you cannot expect your children to be nobler creatures than yourselves; in the other, every act and thought of your present life may be hastening the advent of a race which will look back to you, their fathers—and you ought, at least, to have retained the dignity of desiring that it may be so—with incredulous disdain."

Misapprehensions Regarding Evolution.

Many, it may here be observed, look on the theory of Evolution with suspicion, because they fail to understand its true significance. They seem to think that it is an attempt to account for the origin of things when, in reality, it deals only with their historical development. It deals not with creation, with the origin of things, but with the *modus creandi*, or, rather, with the *modus formandi*, after the universe was called into existence by Divine Omnipotence. Evolution, then, postulates creation as an intellectual necessity, for if there had not been a creation there would have been nothing to evolve, and Evolution would, therefore, have been an impossibility.

And for the same reason, Evolution postulates and must postulate, a Creator, the sovereign Lord of all things, the Cause of causes; the *terminus a quo* as well as the *terminus ad quem* of all that exists or can exist. But Evolution postulates still more. In order that Evolution might be at all possible it was necessary that there should have been not only an antecedent creation *ex nihilo*, but also that there should have been an antecedent involution, or a creation *in potentia*. To suppose that simple brute matter could, by its own motion or by any power inherent in matter as such, have been the sole efficient cause of the Evolution of organic from inorganic matter, of the higher from the lower forms of life, of the rational from the irrational creature, is

to suppose that a thing can give what it does not possess, that the greater is contained in the less, the superior in the inferior, the whole in a part.

No mere mechanical theory, therefore, however ingenious, is competent to explain the simplest fact of development. Not only is such a theory unable to account for the origin of a speck of protoplasm, or the germination of a seed, but it is equally incompetent to assign a reason for the formation of the smallest crystal or the simplest chemical compound. Hence, to be philosophically valid, Evolution must postulate a Creator not only for the material which is evolved, but it must also postulate a Creator, *Causa causarum*, for the power or agency which makes any development possible. God, then, not only created matter in the beginning, but He gave it the power of evolving into all forms it has since assumed or ever shall assume.

But this is not all. In order to have an intelligible theory of Evolution, a theory that can meet the exacting demands of a sound philosophy as well as of a true theology, still another postulate is necessary. We must hold not only that there was an actual creation of matter in the beginning, that there was a potential creation which rendered matter capable of Evolution, in accordance with the laws impressed by God on matter, but we must also believe that creative action and influence still persist, that they always have persisted from the dawn of creation, that they, and they alone, have been efficient in all the countless stages of evolutionary progress from atoms to monads, from monads to man.

This ever-present action of the Deity, this immanence of His in the work of His hands, this continuing in existence and developing of the creatures He has made, is what St. Thomas calls the "Divine administration," and what is ordinarily known as Providence. It connotes the active and constant coöperation of the Creator with the creature, and implies that if the multitudinous forms of terrestrial life have been evolved from the potentiality of matter, they have been so evolved because matter was in the first instance proximately disposed for Evolution by God Himself, and has ever remained so disposed. To say that God created the universe in the beginning, and that He gave matter the power of developing into all the myriad forms it subsequently exhibited, but that after doing this He had no further care for what He had brought into existence, would be equivalent to indorsing the Deism of Hume, or to affirming the old pagan notion according to which God, after creating the world, withdrew from it and left it to itself.

Well, then, can we say of Evolution what Dr. Martineau says of science, that it "discloses the method of the world, not its cause; religion, its cause and not its method."¹ Evolution is the grand and stately march of creative energy, the sublime manifestation of what Claude Bernard calls "the first, creative, legislative and directing Cause."² In it we have constantly before our eyes the daily miracles,

¹ See *Essay on Science, Nescience, Faith*.

² "En résumé, il y a dans un phénomène vital, comme dans tout autre phénomène naturel, deux ordres de causes: d'abord

quotidiana Dei miracula, of which St. Augustine speaks, and through it we are vouchsafed a glimpse, as it were, of the operation of Providence in the government of the world.

Evolution, therefore, is neither a "philosophy of mud," nor "a gospel of dirt," as it has been denominated. So far, indeed, is this from being the case that, when properly understood, it is found to be a strong and useful ally of Catholic Dogma. For if Evolution be true, the existence of God and an original creation follow as necessary inferences. "A true development," as has truthfully been asserted, "implies a *terminus a quo* as well as a *terminus ad quem*. If, then, Evolution is true, an absolute beginning, however unthinkable, is probable;"—I should say certain—"the eternity of matter is inconsistent with scientific Evolution."¹

"Nature," Pascal somewhere says, "confounds the Pyrrhonist, and reason, the dogmatist." Evolution, we can declare with equal truth, confounds the agnostic, and science, the atheist. For, as an English positivist has observed: "You cannot make the slightest concession to metaphysics without ending in a theology," a statement which is tantamount to the

une cause première, créatrice, législative et directrice de la vie, et inaccessible à nos connaissances; ensuite une cause prochaine, ou *exécutive*, du phénomène vital, qui est toujours de nature physico-chimique et tombe dans le domaine de l'expérimentation. La cause première de la vie donne l'évolution ou la *création de la machine organisée*; mais la machine, une fois créée, fonctionne en vertu des propriétés de ses éléments constituants et sous l'influence des conditions physico-chimiques qui agissent sur eux." "La Science Expérimentale," p. 53.

¹ Vid. Moore's "Science and the Faith," p. 229.

admission that "If once you allow yourself to think of the origin and end of things, you will have to believe in a God." And the God you will have to believe in is not an abstract God, an unknowable *x*ⁿ, a mere metaphysical deity, "defecated to a pure transparency," but a personal God, a merciful and loving Father.

As to man, Evolution, far from depriving him of his high estate, confirms him in it, and that, too, by the strongest and noblest of titles. It recognizes that although descended from humble lineage, he is "the beauty of the world, and the paragon of animals;" that although from dust—tracing his lineage back to its first beginnings—he is of the "quintessence of dust." It teaches, and in the most eloquent language, that he is the highest term of a long and majestic development, and replaces him "in his old position of headship in the universe, even as in the days of Dante and Aquinas."

Evolution an Ennobling Conception.

* And as Evolution ennobles our conceptions of God and of man, so also does it permit us to detect new beauties, and discover new lessons, in a world that, according to the agnostic and monistic views, is so dark and hopeless. To the one who says there is no God, "the immeasurable universe," in the language of Jean Paul, "has become but a cold mass of iron, which hides an eternity without form and void."

To the theistic evolutionist, however, all is instinct with invitations to a higher life and a happier existence in the future ; all is vocal with hymns of praise and benediction. Everything is a part of a grand unity betokening an omnipotent Creator. All is foresight, purpose, wisdom. We have the entire history of the world and of all systems of worlds, "gathered, as it were, into one original, creative act, from which the infinite variety of the universe has come, and more is coming yet."¹ And God's hand is seen in the least as in the greatest. His power and goodness are disclosed in the beauteous crystalline form of the snow-flake, in the delicate texture, fragrance and color of the rose, in the marvelous pencilings of the butterfly's wing, in the gladsome and melodious notes of the lark and the thrush, in the tiniest morning dew-drop with all its gorgeous prismatic hues and wondrous hidden mysteries. All are pregnant with truths of the highest order, and calculated to inspire courage, and to strengthen our hope in faith's promise of a blissful immortality.

The Divine it is which holds all things together : περιεχὶ τὸ θεῖον τὴν ὅλην φύσιν.² So taught the old Greek philosophy as reported by the most gifted of her votaries. And this teaching of the sages of days long past, is extended and illuminated by the far-reaching generalization of Evolution, in a manner

¹ Vid. Bishop Temple's "The Relations Between Religion and Science," p. 116.

² Παραδέδοται δὲ ὑπὸ τῶν ἀρχαίων καὶ παμπάλαιων ἐν μύθῳ σχήματι καταλείμμενα τοῖς ἕστερον, ὅτι περιέχει τὸ θεῖον τὴν ὅλην φύσιν. Aristotle, "Metaphysics," XI, VIII.

that is daily becoming more evident and remarkable. But what Greek philosophy faintly discerned, and what Evolution distinctly enunciates, is rendered gloriously manifest by the declaration of revealed truth, and by the doctrines of Him who is the Light of the World.

Science and Evolution tell us of the transcendence and immanence of the First Cause, of the Cause of causes, the Author of all the order and beauty in the world, but it is revelation which furnishes us with the strongest evidence of the relations between the natural and supernatural orders, and brings out in the boldest relief the absolute dependence of the creature on its Maker. It is faith which teaches us how God "binds all together into Himself;" how He quickens and sustains "each thing separately, and all as collected in one."

I can, indeed, no better express the ideas which Evolution so beautifully shadows forth, nor can I more happily conclude this long discussion than by appropriating the words used long ago by that noble champion of the faith, St. Athanasius. "As the musician," says the great Alexandrine Doctor, in his "Oratio Contra Gentiles," "having tuned his lyre, and harmonized together the high with the low notes, and the middle notes with the extremes, makes the resulting music one; so the Wisdom of God, grasping the universe like a lyre, blending the things of air with those of earth, and the things of heaven with those of air, binding together the whole and the parts, and ordering all by His counsel and His will, makes the world itself and its appointed order

one in fair and harmonious perfection; yet He, Himself, moving all things, remains unmoved with the Father."¹

¹ Οὐκ ἄρα τί τις λύραν μουσικὸς ἁρμολόμενος καὶ τὰ βαρῆα τοῖς ὀξεῖσι, καὶ τὰ μέσα τοῖς ἄκροις, τῇ τέχνῃ συναγαγὼν ἐν τῷ σημαινόμενῳ μέλῳ ἀποτελοῖ. οὕτως καὶ ἡ τοῦ Θεοῦ Σοφία, τὸ ὅλον ὡς λύραν ἐπέχων, καὶ τὰ ἐν ἀέρι τοῖς ἐπὶ γῆς συναγαγὼν, καὶ τὰ ἐν οὐρανῷ τοῖς ἐν ἀέρι, καὶ τὰ ὅλα τοῖς κατὰ μέρος συνάπτων, καὶ περιάγων τῷ ἑαυτοῦ νοήματι καὶ θελήματι, ἕνα τὸν κόσμον καὶ μίαν τὴν τούτου τάξιν ἀποτελεῖ, καλῶς καὶ ἁρμολόμενος, αὐτὸς μὲν ἀκινήτως μενῶν παρὰ τῷ Πατρὶ. Sec. XLII.

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