

science and philosophy. The doctrines, however, which have met with most general acceptance regarding the origin and constitution of the universe, can be reduced to a few typical and comprehensive classes.

First of all, comes the Materialism of Leucippus and Democritus, of Heraclitus and of Empedocles, of Epicurus and the philosophers of the Ionian school. The only reality they recognized was matter. Simple atoms, infinite in number, eternal and uncreated, moving eternally in a void infinite in extent, are, of themselves, the only postulate demanded by materialists to explain the universe and all the phenomena which it exhibits. It excludes the intervention of an intelligent cause, and attributes all life and thought to the mere interaction of the ultimate atoms of brute matter. Morality, according to this teaching, is but "a form of the morality of pleasure," religion is the outcome of fear and superstition, and God the name of a being who has no existence outside of the imaginations of the ignorant and the self-deceived.

Materialism, as is obvious, is but another name for Atheism, and is a blank negation of creation as well as of God. "Rigorously speaking," as M. Caro well observes, "Materialism has no history, or, at least, its history is so little varied that it can be given in a few lines. Under what form soever it presents itself, it is immediately recognized by the absolute simplicity of the solutions which it proposes. Contemporary Materialism has in nowise changed the framework of this philosophy of twenty centuries'

standing. It has never deviated from its original program; it has but been enriched with scientific notions; it has been transformed in appearance only, by being surcharged with the data, the views, the hypotheses, infinite in number, which are the outgrowth of the physical, chemical, and physiological sciences. Democritus would easily recognize his teaching, if he were to read the works of M. Büchner; even the language used has undergone but a trifling change."¹ Indeed, "the history of Materialism," as has well been remarked, "may be reduced to indicating the influence which it has exercised at divers epochs, and to recording the names of its most famous representatives."

The advocates of Dualism, like the defenders of Materialism, taught the eternity of matter, but in addition to eternal, uncreated matter, recognized the existence of a personal God. Many of the philosophers of antiquity, who escaped the errors of Materialism and Pantheism, fell headlong into those of Dualism, which possessed as many forms as Proteus himself. Thus, the Manicheans asserted the existence of two principles, one good, the other evil; the former, the creator of souls, the latter, the creator of bodies. According to the gnostics, the world is the work of the angels, and not the immediate result of Divine creative action. Even according to J. Stuart Mill, matter is uncreated and eternal. God, he will have it, but fashioned the universe out of self-existent material, and far from being the Crea-

¹"Le Matérialisme et la Science," p. 136.

tor of the world, in the strict acceptation of the term, is but its architect and builder.

Both Materialism and Dualism are one in asserting the eternity of matter. Materialism, however, is atheistic, in that it excludes a Creator, while Dualism, although rejecting creation, properly so called, admits the existence of a Supreme Being. But God, according to dualists, is little more than a demiurge. He is powerful, but not omnipotent. The eternal, self-existent matter which is postulated, and which exists outside of God, rebels against His action, and becomes a cosmic power against which He is powerless.

Pantheism.

Pantheism is the opposite of Materialism. According to the latter, as we have seen, everything is matter; according to the former, as the word indicates, everything is God. The finite and the infinite; the contingent and the necessary; beings, which appear in time, and God, who is from eternity, are, according to the teachings of pantheists, but different aspects of the same existence. Whether we consider the emanation of the Brahmans, the Pantheism of the Eleatics, or that of the neo-Platonists of Alexandria, or that of Spinoza, Fichte, Schelling and Hegel, the doctrines so taught issue in the negation of creation as well as in the negation of the true nature of God. For to predicate, in what manner soever, an identity of God with the world, or to conceive God as the material principle, or the primal matter, from which everything emanates, as pantheists do, is to negative completely not only

the Christian idea of God, a Being eternal, spiritual in substance, and distinct from the world in reality and essence, but also the Christian and the only true idea of creation.

Having briefly adverted to some of the principal philosophical doctrines which exclude creation in the Christian and Scriptural sense, and having given a hasty glance at some of the more widely-spread errors respecting the nature of the Creator and His creatures, we are now prepared to consider the teachings of Catholic philosophy and theology as to creation, and as to the origin and nature of the material universe.

Dogma of Creation.

Creation, in its strictest sense, is the production, by God, of something from nothing. The universe and all it contains was called into existence *ex nihilo*, by an act of the Creator, which was not only supernatural, but also absolute and free. It was, therefore, in no wise formed from preëxisting material, for none existed, nor by any emanation from the Divine substance. God alone is necessary and eternal; the world of matter and the world of spirit, outside of God, are contingent, and have their existence in time. But, notwithstanding that the nature of the world of created things is finite, and entirely different from the Divine nature, which alone is infinite and necessary, nevertheless, all the creatures of God have a real existence, although limited in its duration and dependent entirely on Divine Providence for its continuance.

A secondary meaning of the word "creation," is the formation, by God, of something from preëxisting material. This is the natural action of God in the ordaining or administering of the world, as distinguished from the supernatural act of absolute creation from nothing. In this sense God is said to create derivatively, or by the agency of secondary causes. He creates potentially; that is, He gives to matter the power of producing or evolving, under suitable conditions, all the manifold forms it may ever assume. In the beginning He created matter directly and absolutely, once for all; but to the matter thus created He added certain natural forces—what St. Augustine calls *rationes seminales*—and put it under the action of certain laws, which we call "the laws of nature." Through the operation of these laws, and in virtue of the powers conferred on matter in the beginning, God produces indirectly, derivatively, by the operation of secondary causes, all the various forms which matter may subsequently assume, and all the divers phenomena of the physical universe.

In another sense, also, the word "creation" may be employed, as when we speak of the creations of genius, or refer to creations of Raphael, Michael Angelo, or Brunelleschi. In these cases, the work of the artist or of the architect consists simply in making use of the laws, and powers and materials of nature, in such wise as to effect a change in form or condition. The action of the intelligent agents in this case being natural, but more than physical, may conveniently be designated as hyperphysical.

With hyperphysical creation we shall have little to do. Our chief concern will be with absolute, or direct creation, and with secondary or derivative creation, both of which are so often misunderstood and confounded, if not positively denied. It would, indeed, seem that the sole aim and purpose of a certain school of modern scientists, is to discover some means of evading the mystery of creation. For they not only deny creation, but also deny its possibility, and all this because they, with "the fool," persist in saying in their hearts "There is no God." So great, indeed, is their hatred of the words "Creator" and "creation," that they would, if possible, obliterate them from the dictionary, and consign all works containing them to eternal oblivion.¹

The Vatican Council on Creation.

For a clear and succinct statement of Catholic doctrine, in respect of God as Creator of all things, as well for an expression of the Church regarding the errors of Materialism and Pantheism now so rife, we can have nothing better or more pertinent to our present subject than the constitution and canons of the Vatican Council: *De Deo Rerum Omnium Creatore*.

The "Dogmatic Constitution of the Catholic Faith," in reference to "God, the Creator of all things," reads as follows: "The Holy Catholic Apostolic Roman Church believes and confesses, that

¹"In properly scientific works," says Büchner, who declares that "science must necessarily be atheistic," "the word [God] will seldom be met with; for, in scientific matters the word 'God' is only another expression for our ignorance." "Man in the Past, Present, and Future," p. 329.

there is one true and living God, Creator and Lord of heaven and earth, Almighty, Eternal, Immense, Incomprehensible, Infinite, in intelligence, in will, and in all perfection, who, as being one, sole, absolutely simple and immutable spiritual substance, is to be declared as really and essentially distinct from the world, of supreme beatitude in and from Himself, and ineffably exalted above all things which exist, or are conceivable, except Himself.

"This one only true God, of His own goodness and Almighty power, not for the increase or acquirement of His own happiness, but to manifest His perfection by the blessings which He bestows on creatures, and with absolute freedom of counsel, created out of nothing, from the very beginning of time, both the spiritual and the corporeal creature, to wit, the angelical and the mundane, and afterward the human nature, as partaking in a sense of both, consisting of spirit and body."

But the canons of the Council relating to God as Creator of all things, are, if anything, stronger and more explicit than what precedes.

They are as follows :

"1. If anyone shall deny one true God, Creator and Lord of things visible and invisible, let him be anathema.

"2. If anyone shall not be ashamed to affirm that, except matter, nothing exists; let him be anathema.

"3. If anyone shall say that the substance and essence of God and of all things is one and the same; let him be anathema.

"4. If anyone shall say that infinite things, both corporeal and spiritual, or at least spiritual, have emanated from the Divine substance; or that the Divine Essence by the manifestation and evolution of Itself becomes all things; or lastly, that God is universal or indefinite being, which by determining itself constitutes the universality of things, distinct according to genera, species and individuals; let him be anathema.

"5. If anyone confess not that the world and all things which are contained in it, both spiritual and material, have been, in their whole substance, produced by God out of nothing; or shall say that God created, not by His will free from all necessity, but by a necessity equal to the necessity whereby He loves Himself; or shall deny that the world was made for the glory of God; let him be anathema."

We have here in a nutshell the Catholic doctrine of creation, as well as an authoritative pronouncement, which cannot be mistaken, respecting the attitude of the Church towards the Atheism, Materialism and Pantheism which have infected so many minds in our time, and exerted such a blighting influence on contemporary science.

Meaning of the Word "Nature."

Knowing, now, in what sense we may interpret the word "creation," in what sense it must be understood according to Catholic teaching, we next proceed to the discussion of the word "nature," about which so much crass ignorance prevails, even among

those who employ it most frequently, and whom it behooves to have clear ideas as to its import.

"Nature" is frequently employed to designate "the material and spiritual universe as distinguished from the Creator;" to indicate the "world of substance whose laws are cause and effect;" or to signalize "the aggregate of the powers and properties of all things." It is used to signify "the forces or processes of the material world, conceived as an agency intermediate between the Creator and the world, producing all organisms, and preserving the regular order of things." In this sense it is often personified and made to embody the old gnostic notion of a demiurge, or an archon; a subordinate, creative deity who evolved from chaos the corporeal and animated world, but was inferior to the infinite God, the Creator of the world of spirits. It is made to refer to the "original, wild, undomesticated condition of an animal or a plant," or to "the primitive condition of man antecedent to institutions, especially to political institutions," as when, for instance, we speak of animals and plants being found, or men living in a state of nature. It likewise distinguishes that which is conformed to truth and reality "from that which is forced, artificial, conventional, or remote from actual experience."

These are only a few of the many meanings of the word "nature," and yet they are quite sufficient to show us how important it is that we should always be on our guard lest the term, so often ambiguous and so easily misapplied, lead us into grave mistakes, if not dangerous errors. In works on nat-

ural and physical science, where the word "nature" is of such frequent occurrence, and where it possesses such diverse meanings, having often different significations in a single paragraph, there is a special danger of misconception. Here, unless particular attention be given to the changed meanings of the term, it becomes a cloak for the most specious fallacies, and a prolific source of the most extravagant paralogisms.

Any one of the diverse meanings of the word "nature," as just given, is liable to be misconstrued by the unwary. But the chief source of mischief with incautious readers arises from the habit scientific writers have, of indiscriminately personifying nature on all occasions; of speaking of it as if it were a single and distinct entity, producing all the various phenomena of the visible universe, and of referring to it as one of the causes that "fabricate this corporeal and sensible world;" as a kind of an independent deity "which, being full of reasons and powers, orders and presides over all mundane affairs."

When poets personify nature there is no danger of misconception. In their case the figurative use of the term is allowed and expected. Thus, when Bryant tells us that nature speaks "a various language," or when he bids us —

"Go forth under the open sky, and list

To nature's teachings;"

or when Longfellow declares that—

"No tears

Dim the sweet look that nature wears,"

we understand at once that "nature" is but a

poetical fiction; and that the term is to be interpreted in a metaphorical and not in a literal sense.

With naturalists, however, and philosophers, who are supposed to employ a more exact terminology, such a figurative use of language cannot fail, with the generality of readers, to be both misleading and mischievous.

Darwin, and writers of his school, are continually telling us of the useful variety of animals and plants given to man "by the hand of 'nature,'" and recounting how "'nature' selects only 'for the good of the being which she tends,'" how "every selected character is fully exercised by her," and how "natural selection entails divergence of character and extinction of less improved forms." Huxley loves to dilate on how "'nature' supplied the club-mosses which made coal," how she invests carbonic acid, water, and ammonia "in new forms of life, feeding with them the plants that now live." He assures us that "thrifty 'nature,' surely no prodigal! but the most notable of housekeepers," is "never in a hurry, and seems to have had always before her eyes the adage, 'Keep a thing long enough, and you will find a use for it;'" that "it was only the other day, so to speak, that she turned a new creature out of her workshop, who, by degrees, acquired sufficient wits to make a fire."

Nature and God.

Now, there is no doubt but that all these quotations can be understood in an orthodox sense, but the fact, nevertheless, remains, that they are not

always so construed, and for the simple reason that both the writers from whom these citations are made, are avowed agnostics. So far as Huxley and Darwin are concerned, there *may* be a personal God, the Creator of the universe; but, they will have it, there is no evidence of the existence of such a Being. On the contrary, according to their theory, there is nothing but matter and motion, and if they do not, like King Lear, say: "Thou, nature, art my goddess," their teachings tend to incline others to the belief that there does really exist an entity subordinate to God, if not independent of Him, that produces all existing phenomena, not only in the world of matter, but also in the world of spirit.

It is, then, against this constant misuse of the word "nature," and especially against the many false theories which are based on the misapprehension of its true significance, that it behooves us to be constantly on our guard. Errors of the most dangerous character creep in under the cover of ambiguous phraseology, and the poison of false doctrine is unconsciously imbibed, even by the most cautious. We may, if we will, personify nature, but, if we do so, let it not be forgotten that nature, with all her powers and processes, is but a creature of Omnipotence; that far from being merely an inward, self-organizing, plastic life in matter, independent of God, as was asserted by the hylozoist, Strato of Lampsacus, nature, as good old Chaucer phrases it, is but "the vicar of the Almighty Lord."

"What else," asks Seneca, "is nature, but God, and a certain Divine purpose manifested in the world?"

You may, at pleasure, call this Author of the world by another name."¹ Again, in referring to the Deity, under the name of Jupiter, he inquires, "Wilt thou call Him nature? Thou wilt not sin. For it is from Him that all things are born, and by whose Spirit we live."² All this, and more, is affirmed with equal beauty and terseness by the "Christian Cicero," Lactantius: "If nature," he asks, "does all that she is said to do; if she everywhere displays evidences of power, intelligence, design, wisdom; why call her nature, and not God?"³

Having explained the meaning of the words "creation," and "nature," we are now prepared to consider the subject of Evolution in relation to the teachings of faith. Here, however, we must again distinguish, and explain. There are evolutionists, and evolutionists. There are evolutionists who give us in a new guise the old errors of Atheism, Materialism and Pantheism; there are others who assert that our knowledge is confined to the phenomenal world, and that, consequently, we can know nothing about the

¹ "Quid enim aliud est natura quam Deus et divina ratio toti mundo et partibus ejus inserta? Quoties voles, tibi licet aliter hunc auctorem rerum nostrarum compellare." Seneca, "De Beneficiis." Lib. IV, chap. 1.

² "Vis illum naturam vocare? non peccabis. Est enim ex quo nata sunt omnia, cujus Spiritu vivimus." "Natural. Quæst." Lib. II.

³ "Natura, quam veluti matrem esse rerum putant, si mentem non habet, nihil efficiet umquam, nihil molietur. Ubi enim non est cogitatio, nec motus est ullus; nec efficacia. Si autem concilio suo utitur ad incipiendum aliquid, ratione ad disponendum, arte ad efficiendum, virtute ad consummandum, potestate ad regendum, et continendum, cur natura potius quam Deus nominetur." "De Ira Dei," cap. x.

absolute and the unconditioned; and there are others still, who contend that Evolution is not inconsistent with Theism, and maintain that we can hold all the cardinal principles of Evolution without sacrificing a single jot or tittle of Dogma or revelation.

For the sake of simplicity, we shall designate these three classes of evolutionists as: 1, monists; 2, agnostics; and 3, theists. Their doctrines are clearly differentiated, and naturally distinguish three schools of contemporary thought, known respectively as: 1, Monism; 2, Agnosticism; and 3, Theism. This is the most convenient and comprehensive grouping we can give, of the tenets of the leading representatives of modern science and philosophy, and, at the same time, the most logical and satisfactory. In order to secure as great exactness, and make my exposition as concrete and tangible as possible, I shall, when feasible, allow the chief exponents of Monism, Agnosticism, and Theism, to speak for themselves, and to present their views in their own words. This will insure not only greater accuracy, but will also be fairer, and more in keeping with the plan I have followed in the preceding pages.