

the origin, nature, and end of things, the result being to show that the evolutionary scheme stands helplessly before each of these three problems. It is a very thorough and very telling exposure of the essential atheism of evolutionism considered as a philosophy of being.

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The Bible Student, n.s. 4.1:1-8

Creation, Evolution, and Mediate Creation

Warfield's two essays in *The Bible Student* (1901 and 1903) offer his fullest positive account of how best to harmonize Christian trust in an active biblical God and responsible scientific research. The essay from 1901 does this through an extensive effort at defining three methods of divine interaction with the world: evolution (which Warfield considers a way for God to control certain material developments providentially), creation *ex nihilo* (the divine origination of something out of nothing), and mediate creation (the divine origination of something new out of a preexisting something that does not possess the intrinsic force to produce the new object). In this three-fold scheme, evolution and creation are opposites; evolution means development based on preexisting potential while creation means the active origination of something new.

As he summarizes his main ideas toward the end of this essay, Warfield holds that evolution cannot take the place of creation: it cannot explain the origination of matter in the first place, it cannot account for miracles and the incarnation of Christ, and it is inadequate for explaining the origin of human self-consciousness and of individual souls. What then is left for evolution? Warfield has no quarrel with evolution when, "confined to its own sphere" of developments in the natural world, it is viewed as "a suggested account of the method of divine providence."

The essay from 1903 in *The Bible Student* expands upon Warfield's view of how evolution and creation interacted in the production of humankind. In that later essay, Warfield no longer uses the phrase "mediate creation," but he explains the origin of humanity in terms conforming to his 1901 definition of "mediate creation."

Throughout both these essays it is apparent that Warfield is as concerned about the best way to describe miracles as he is con-

cerned about the origin of the earth and of humanity.¹ It is also clear that he remained steadfastly vigilant against evolution when taken as a total philosophy of life excluding the activity of God. At the same time he was moving toward incorporating evolution, properly defined and limited, into the Calvinist interpretation of Scripture that he outlined in reviews and articles appearing over the next dozen years.

Creation versus Evolution. "I believe in God the Father almighty, maker of heaven and earth." That is the first article of the baptismal creed of Western Christendom. "In the beginning God created the heaven and the earth." That is the first sentence in the Christian revelation. That God alone is the first and the last, who changes not; that all that exists is the work of his hands and depends on his power for both its existence and its continuance in existence—this is the unvarying teaching of the whole Bible. It is part of the very essence of Christianity, therefore, that the explanation of the universe is found in God; and its fundamental word is, accordingly, "creation." Over against the Christian conception there has arisen in our day, however, a movement which has undertaken to explain the world and all that it contains without God, without any reference to any unseen, supernatural, spiritual element. The watchword of this movement is "evolution." And its confession of faith runs: "I believe in an eternal flux and the production of all things out of their precedent conditions through the natural interworking of the forces intrinsic to the changing material."

Pfleiderer's Evolutionary Scheme.² Perhaps as good a presentation of this evolutionary program as can easily be turned up is Otto Pfleiderer's discussion of "Evolution and Theology," which holds the first place in the volume of essays lately published by him under that title. The era of "scientific theology" is at last come, he tells us. And he explains scientific theology to mean a theology that has adopted the scientific method. "This method," he proceeds, "is simply that of causal thinking according to which every event is the necessary effect of causes whose operation is

1. For Warfield's use of the phrase "mediate creation" in an article on miracles that was written about the same time, see "The Question of Miracles," in *The Bible Student*, n.s. 7:3-6 (March-June 1903), as reprinted in *SSWW* 2:167-204.

2. [See pp. 193-94 for Warfield's 1901 review of Pfleiderer's *Evolution and Theology*.]

again determined by their connection with other causes, or by their place in a reciprocal action of forces according to law." Thus everything that comes into being "is to be regarded as the effect of the causes lying in the preceding condition, these causes again serving as means for the purpose of the following condition."

On the universality of the application of this principle Pfleiderer insists with the utmost emphasis. "There is only the one choice: either the evolutionary mode of thought is right, in which case it must be uniform in all fields of investigation, in history, then, as well as in nature; or it is wrong, in which case the views of nature acquired by means of it are not justified, and we have no right to prefer them to the traditions of faith." Accordingly the supernatural is excluded from every sphere of action—"not merely the nature miracle, . . . but also just as much the spiritual miracle, i.e., the intervention of a foreign power in the human soul whereby conditions are produced in it which do not result from the causal connection with antecedent conditions." The "cardinal proposition of the science of today" is "that we have to explain every condition as the causally determined development out of a preceding one," and "this excludes on principle the appearance of any condition, event, action, or possibility which is not explicable out of the factors of the preceding conditions and according to the laws of genesis in general." The intrusion of "causes which are outside the causal connection of finite forces" is to be sternly denied.

A God Not Necessarily Denied. The evolutionary program, when taken in its entirety, obviously involves the substitution of an eternal series for the eternal God. Its account of the universe is that it is self-formed by the interaction of its intrinsic forces. Evolution, however, is not always, perhaps not even generally, taken in its entirety. It is not always pressed, for example, to the denial of the existence of God, or even of a transcendent God, or even of a God who directs the course of evolution in a truly providential government. Pfleiderer himself speaks of the divine as "always everywhere . . . lying at the basis of the total historical development." He makes, indeed, this fact the ground of his denial of the supernatural. Because God lies at the basis of everything, he remarks, "no single historical event is to be isolated as a supernatural effect or phenomenon and taken out of the connection of finite causes and effects."

A God may be admitted; even a governing God may be acknowledged, provided only that he governs in, with and through natural causes only, so that all that comes to pass finds its entire account in the second causes operative in its production. It is "causal thinking" that is contended for. That is, what is asserted is that all that is is the product of the natural causes operative in the conditions out of which it emerges. God, if there be a God, produces nothing directly and immediately. He is not a productive cause. At the best he is but a directive cause. There may possibly be "providence"; there cannot possibly be "creation."

But Evolution and Creation Are Mutually Exclusive. Evolution, it thus appears, is the precise contradictory of creation. This it is, indeed, *ex vi termini* [by the force of its limits, i.e., by definition]. Evolution is an *unrolling*, and the process of unrolling—say of a ball of twine—produces nothing; the unrolled twine is just what the rolled-up twine was, that and nothing more. The only difference is a difference of *state*: what was rolled up before is now unrolled. Creation, on the contrary, is definitely *origination*; creation produces something that did not exist before. When we say "evolution," we say thereby that there has been no origination; we say that there has been only *modification*—and modification in itself implies preexistence in unmodified form. When we say "creation," we say, on the other hand, that there has been no modification. We say there has been *origination*—and origination in itself implies previous nonexistence and hence excludes modification. When we say "evolution," we definitely deny creation; and when we say "creation," we definitely deny evolution. Whatever comes by the one process by that very fact does not come by the other. Whatever comes by evolution is not created; whatever is created is not evolved.

Antisupernaturalism of Evolutionists. This mutually exclusive relation of evolution and creation is of course recognized by all consistently thoughtful adherents of evolution, and indeed constitutes often the very reason of their adherence to evolution. "It is clear," says Prof. James Sully,³ for example, "that the doctrine of evolution is directly antagonistic to that of creation. Just as the

3. [James Sully (1842–1923), English psychologist and philosopher, wrote primarily on education, social progress, and art.]

biological doctrine of the transmutation of species is opposed to that of special creations, so the idea of evolution, as applied to the formation of the world as a whole, is opposed to that of a direct creative volition. *It substitutes within the ground which it covers the idea of a natural and necessary process for that of an arbitrary volitional process.*" Again: "The theory of evolution, by assuming an intelligible and adequate principle of change, *simply eliminates the notion of creation from those regions of existence to which it is applied.*" The attraction of evolution for its adherents often seems indeed to reside just in its assumed capacity to explain the origin of things without the assumption of creation.

It will be remembered that Charles Darwin asserted that he would cease to care for evolution if it did not supersede the necessity for assuming even a directing activity of God. And the same zeal for the exclusion of all supernaturalism is apparent in such a remark as the following from Wiedersheim's *Structure of Man* (p. 2):⁴ "Blood relationship and not some unknown plan of creation unites organisms in various degrees of similarity, and in this great family man must find his place; he forms but a link in the chain and has no right to consider himself an exception." Why is the negative clause "and not some unknown plan of creation" inserted into this sentence? It is not a true disjunctive to the positive proposition—for it may be true that blood relationship does unite organisms, and yet this may be in accordance with the plan of creation. It is gratuitously inserted for no other purpose than to reject the idea of a plan of creation, and so betrays Wiedersheim's primary interest in the doctrine of evolution; namely, it enables him to do without a plan of creation. He is, in a word, as an evolutionist polemically antisupernaturalistic.

Can the Evolutionist Get Along without Creation? We are not saying that the evolutionist can get along without a doctrine of creation. We are saying only these two things. First, that evolution and creation are contradictory processes, and that whatever comes by the one process does not come by the other, so that in so far as the one is affirmed the other is denied. And sec-

4. [Professor Robert Wiedersheim (1848–1929) specialized in comparative anatomy and embryology at the University of Freiburg. His *Comparative Vertebrate Anatomy* appeared in English in 1886.]

only, that the idea of evolution is frequently utilized nowadays just in order to exclude creation, and that men, when they affirm evolution, commonly mean nothing more than to deny creation.

It is easy to point out, to be sure, that evolution does not provide a satisfactory substitute for creation. At the best, it offers, of course, only an infinite series as its account of the origin of things. Break up this series into a series of cycles if you will—it is still but an infinite series of cycles, and an infinite series of cycles is not less unthinkable than an infinite series of events in a straight line.

There is obviously a *present*. We have attained at this present moment a particular stage of evolution. Whether this particular stage of evolution is given a place in a cycle or in a straight line of development, the very fact that it is a particular stage of evolution implies that the series in which it finds a place had a beginning. And the question presses, In the beginning—what? We cannot hang the chain upon *nothing*, and the further we project it into the past the less can we hang it on nothing. Let the links be particular events or cycles of events—it is all one. We must have something to hang it on—"in the beginning."

Account for all you see, then, as mere modifications of what has gone before, if you choose. You cannot push this series of modifications into eternity; you must posit a beginning and with it a Beginner. To obtain the evolutionary stuff with all its potentialities as exhibited in the process of its evolution, you must therefore posit a creation. But the positing of this creation, it is obvious, is the denial of evolution. It is posited just because a need is found for which evolution will not provide, and it is called in to do what evolution cannot do. So far as creation is operative, evolution is inoperative; only when creation is complete does evolution begin. The one furnishes the stuff; the other can be called in only to account at most for the various forms this created stuff has taken in its successive subsequent modifications.

Theistic Evolution. It has become quite common, accordingly, to distribute the account of the universe between the two processes in this manner: creation, it is said, supplies the original material; evolution accounts for all its subsequent modifications. And this is called theistic evolution. It may well be that. It is another question whether it may be fitly called also Christian evolution. For observe: it confines the creative operations of God to

the origination of the primal world-stuff. Everything subsequent to that is withdrawn from the sphere of creation, i. e., is explained as a mere modification of the primal world-stuff by means of its intrinsic forces. The providential guidance of God need not be excluded, to be sure; the theist will readily allow that God directs the evolution. But all origination, all production of what is really new, is necessarily excluded throughout the whole process of evolution. And this is the definite exclusion of all creation.

This result is, indeed, not always explicitly recognized. On the contrary, it is quite common to speak of evolution as God's method of creation. It is quite common, indeed, to put it forward as the process of a mediate creation. We find even Prof. Cope defining the doctrine of evolution as "the teaching that holds that *creation has been and is accomplished by the agency of the energies which are intrinsic in the evolving matter.*"

Little wonder that the unscientific drop into the same self-contradictory mode of speech. "What is the doctrine of evolution?" asks Dr. Hillis.⁵ And he replies: "Fundamentally it is the doctrine of creation by gradualism rather than by instantaneous fiat." "Almost no one," remarks Dr. R. S. MacArthur,⁶ "doubts that 'creation has a history.' It is certain that, as it has been pursued in time, so also it has been pursued by method. As Harts-horne has shown, Prof. Asa Gray, Doctor McCosh, Baden Powell, the Duke of Argyll, and others all teach the view of orderly creation by law under the immediate action of divine power working by natural causes or forces.⁷ This power, as he says, has been rightly described as a theory, not of supernatural or miraculous interference, but rather of *creative evolution.*" If evolution and creation are mutually exclusive, however, to talk of creation as ac-

5. [Newell Dwight Hillis (1858-1929) was a prominent clergyman known for his brilliant preaching. He was involved in many contemporary social and political issues and held the pastorate at Henry Ward Beecher's former church, the Plymouth Congregational Church in Brooklyn.]

6. [Robert Stuart MacArthur (1841-1923) served at the Calvary Baptist Church in New York City for forty-one years. He was a well-known speaker and prolific author who expounded his conservative theology in books and various Baptist periodicals.]

7. [Henry Hartshorne (1823-1897) was a physician and professor of physiology in Philadelphia. Gray, McCosh, Baden Powell, and the Duke of Argyll all incorporated theories of evolution into an overarching Christian theism.]

completed by evolution, of evolution as "creation by gradualism," of "creative evolution," is certainly misleading. You cannot modify by originating; you cannot originate by modifying.

What Is "Mediate Creation"? Are we forgetting, then, the old doctrine of mediate creation? Certainly not. The name may not be exact, but the thing is very real. Indeed, it is in order to assert its reality and to defend the importance of its being recognized that we are resisting the current effort to confuse it with evolution. All the old writers recognize the distinction between absolute or immediate creation and the so-called mediate creation; they so define creation as to leave room for both varieties. But they also so define it as to preserve mediate creation from confusion with evolution.

The matter may be found fully discussed, for example, in Turretine (*Locus 4, Q. 1, § 6*).⁸ We will quote here in preference, however, the brief definitions which Wollebius gives in his remarkable little compend.⁹ "Creation," he says, "is that act by which God, for the manifestation of the glory of his power, wisdom, and goodness, has produced the world and all that is in it"—we relapse now into his Latin—"partim ex nihilo, partim ex materia naturaliter inhabili"—that is to say, in part out of nothing, and in part out of preexisting material indeed, but material not itself capable of producing this effect. Again: "to create is not only to make something out of nothing but also *ex materia inhabili supra naturae vires aliquid producere*"—to produce out of this inapt material something above what the powers intrinsic in it are capable of producing. Thus the mark of creation, namely, the production of something new for the production of which nothing in the precedent conditions can account, which transcends all that is present

8. [Francis Turretini (sometimes Turretin or Turretine) (1623–87), last of the giants of Genevan Reformed orthodoxy, was a leading figure in the formation of the *Formula Consensus Helvetica* (1675). He authored the influential *Institutio Theologiae Elencicae*, which was used in its Latin original as the theology text at Princeton Seminary (as well as other Presbyterian schools) until the appearance of Charles Hodge's *Systematic Theology* in 1872.]

9. [Johannes Wollebius (1586–1629) was a Swiss Reformed pastor and theologian in Basel and author of *Compendium Theologiae Christianae* (1626), a widely acclaimed textbook of Reformed dogmatics.]

in the antecedent conditions, is preserved in this definition. And it is only because this is preserved that the process described can be called creative at all.

Now it is to be observed that evolution by its very definition, and by its inherent nature, is the antipode of this. The primary fact concerning anything that is evolved is that it was already present in the precedent conditions and needed only to be educed from them, that its evolution is accomplished by the resident forces, that there is no production of anything truly new—no real origination, but only a modification. By this very fact it is, then, no creation at all, whether immediate or mediate, but merely an unrolling, a development.

Dr. Zahm's Definition of Evolution. Examples are thick about us, however, of the care which the evolutionists take not to distinguish evolution from mediate creation, but rather to confuse it with mediate creation. We select an instructive instance from the Roman Catholic writer Dr. J. A. Zahm:¹⁰

Another reason for the prevalent confusion of thought regarding the relation of theology to evolution arises from the erroneous notions entertained by so many respecting the true significance of creation and evolution. They fail to distinguish between absolute creation *ex nihilo* and derivative creation. Absolute creation embraces only spiritual intelligences and the material elements of which the universe is composed. Derivative creation on the contrary means only the formation of something from preexistent material, and includes all organic and inorganic compounds, all form of vegetable and animal life, for all these have been produced from those elementary bodies which constitute alike the earth and all the orbs of the firmament.

Only absolute creation therefore is creation properly so-called. Derivative creation, however, is nothing more than development under the action of the laws of nature imposed by God on the elements in the beginning. It is evolution from lower to higher forms under the action of what St. Thomas calls the Divine Administra-

10. [John Augustine Zahm (1851–1921), American naturalist and explorer, was a leading Catholic scientist and president of the board of trustees of Notre Dame University. He articulated a theory of evolution consonant with the teachings of the Roman Catholic Church, for which he received an honorary Ph.D. from Pope Leo XIII in 1895.]

tion, and in consequence of the action of what St. Augustine terms seminal reasons—*rationes seminales*. Absolute creation is direct, immediate, supernatural; derivative creation is indirect, and is effected by the Almighty through the agency of secondary causes.

In the beginning God created the elements once for all, but on these simple elements he conferred the power of evolving into all the countless forms of beauty which now characterize the organic and inorganic worlds. What, then, the older theologians called secondary or potential creation or formation—development under the guidance of God's providence—we may now call, and with the utmost precision of language, evolution. For God, as St. Augustine observes, did not create animals and plants directly, but potentially and causally *in fieri, in causa, potentialiter atque causaliter* [the Latin is translated loosely by "potentially and causally"].

This, however, is theistic evolution, not agnostic evolution, which relegates God to the region of the unknowable; nor atheistic evolution, which finds in the chance interaction of eternal force and eternal matter an adequate explanation of all the problems of the existing universe. For, let me insist, evolution does not and cannot account for the origin of things. The best it can do is to throw some light on their historic development, and this for the simple reason that it does not and cannot deal with the origin of things, but only with the *modus creandi* [means of creating], or rather with the *modus formandi* [means of forming], employed by Omnipotence after the universe had been called into existence by the Divine Fiat. "Evolution then," as I have elsewhere shown (*Evolution and Dogma* [1896], pp. 431-32), "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.

What Does Dr. Zahm Do with "Mediate Creation"? The confusions of this passage are typical. They are not only matched in the treatment of the subject by the whole mass of theistic evolutionists, but ordinarily much more than matched. For Dr. Zahm, after all, has some glimmering of the fact that his derivative creation is no creation at all, but just providential guidance. The passage is very fairly illustrative, nevertheless, of what we are seeking to illustrate. This to wit: that even the writers who frankly allow that evolution has no account to give of the origination of

the stuff evolving, yet seek to make evolution take the place of creation in the sphere of mediate creation.

Dr. Zahm tells us that the primal act of absolute creation brought into being only the chemical elements of the material universe and "spiritual intelligences." And he tells us that everything else that exists has been brought into existence "through the agency of secondary causes," which he himself explains as nothing more than "development under the guidance of God's providence." In the course of this development nothing absolutely new is produced. There is only the evolution into new forms of what was from the beginning included in the primally created stuff. What is meant by ascribing to the production by absolute creation not only "the material elements of which the universe is composed" but also "spiritual intelligences" is not, to be sure, perfectly clear—beyond Dr. Zahm's obvious intention to divide the universe into the two disparate substances of matter and spirit. If it is meant that at the formation of Adam there accompanied the derivative creation by virtue of which his body was formed (not created) from the lower animals an act of absolute creation producing the immortal spirit, or that at the birth of every human being there accompanies the act of derivative creation by which the body is derived from its parents an act of absolute creation of the soul, Dr. Zahm is really allowing here for the old divines' category of mediate creation without his being aware of it, a category standing between his absolute creation by which an origin is given to the world and his derivative creation by means of which God's providence leads second causes to the production of effects level to their power indeed, but wrought only in accord with his will.

The Real Meaning of "Mediate Creation." Perhaps, though, it is too much to suppose that this was Dr. Zahm's intention. The noting of it as possibly lying in his words, however, will enable us to point out more clearly and exactly what mediate creation is and precisely what the issue is that is raised by the attempt to substitute evolution for it. By mediate creation is really meant the truly creative acts of God occurring in the course of his providential government by virtue of which something absolutely new is inserted into the complex of nature—something for the production of which all that was previously

existent in nature is inadequate, however wisely and powerfully the course taken may be led and governed—something for the production of which there is requisite the immediate “flash of the will that can.”¹¹

By the recognition of this mode of production, a third category is erected alongside of the products of creation pure and simple and of providence pure and simple, namely, products of creation and providence working together, and each contributing something to the effect—mixed products of the immediate and of the mediate activity of God. As Wollébius expresses it, it is creation not *ex nihilo*, but *ex materia inhabili supra naturae vires*. Now the issue raised by the so-called theistic evolutionists in their attempt to make evolution do all the work subsequent to the primal act of creation is just whether such a category as mediate creation exists—whether there are any products of the divine power which are inserted into the course of providence by an immediate operation of God, and emerge as something new, for the production of which the second causes operative in the case are inadequate.

The Question of the Direct Supernatural. It will be seen at once that this issue is the issue of the direct supernatural. The question raised is whether God has acted immediately only once, namely, in the original production of the primal world-stuff, or whether he has also acted immediately subsequent to this original act of creation—whenever, to wit, the purposes he is executing require the production of something which the powers operative in nature are inadequate to produce. Let it be carefully observed that there is no tendency in the affirmation of this mode of activity to deny or disregard or minimize God’s providential activity. This is affirmed with all the emphasis which theistic evolution can possibly throw upon it. It is insisted only that God’s providential activity—evolution, if you choose to call it such—does not comprise in itself the totality of God’s activities since the primal act of creation, and that it can-

11. [In “Question of Miracles” Warfield provides the complete quotation from Robert Browning: “Here is the finger of God, a flash of the will that can—/ Existent behind all laws, that made them, and lo! they are!”]

not fitly bear the name of creation because it is in its very nature diverse from the thing.

There is a mode of action of God midway between creation pure and simple and providence pure and simple—a mixed mode of action. It is to this mixed mode of action that, historically, the name of mediate creation has been attached. Within the limits of this mode of action fall miracles and everything else which, like miracles, occurs in the complex of natural causes and yet not by means of the forces operative in the natural causes. Whenever and wherever during the course of God’s providential government anything comes into being for the production of which natural causes are inadequate, *that* is an act of mediate creation. But it is not an act of evolution, for it is not a product of the forces intrinsic in the evolving stuff nor a mere unrolling of what was present before in a rolled-up state.

The Christian’s Attitude toward Evolution. What, then, is to be the attitude of the Christian man toward the modern doctrine of evolution? He is certainly to deny with all the energy given to him that the conception of evolution can take the place of creation as an account of the origin of the universe. Evolution offers no solution of the question of origins. For its operation it presupposes not only already existent material which can unroll into fresh forms, but material within which all that is subsequently evolved already potentially exists.

And he is to deny with equal strenuousness that the conception of evolution can take the place of mediate creation as an account of the origination of new things in the course of the divine government of the world. Since the first origin of the world there have come into being things which did not lie potentially within the primal world-stuff, needing only to be educed from it. If nothing else, the God-man has come into being, and that not as the product of precedent conditions in the world, but as an intrusion from without and above. And with him, the whole series of events that constitute the supernatural order of the kingdom of God. Nor is there any reason to doubt that the same intrusion of purely creative force, productive of something absolutely new, may have occurred also in the natural order of the first creation—

say, at the origination of self-conscious, immortal beings in the complex of nature.

On the other hand, the Christian man has as such no quarrel with evolution when confined to its own sphere as a suggested account of the method of the divine providence. What he needs to insist on is that providence cannot do the work of creation and is not to be permitted to intrude itself into the sphere of creation, much less to crowd creation out of the recognition of man, merely because it puts itself forward under the new name of evolution.

The Manner and Time of Man's Origin

This essay is an exercise in mediation. It deals primarily with two questions: the manner of human creation and the time of that creation. On the first issue, Warfield proposes—"a composite transaction" or "a double act" whereby humanity appears as a product of divinely superintended evolutionary processes (with evolution defined as in the 1901 article) and of a miraculous bestowal of the *imago dei* (creation *ex nihilo* or perhaps mediate creation as defined in the earlier essay). Without yet using the term *concurus* that he later employs in his 1915 essay on Calvin's view of creation, Warfield is moving toward a view of human origins defined by his Calvinistic understanding of *concurus*.

The second, longer section of the essay considers the age of the earth and the duration of human existence on earth. Warfield holds that these questions are not significant for theology. The mediation he works at this point is to convince Christians that the Bible does not demand an earth only six thousand years old and to show to the scientifically inclined that it is not necessary to postulate an immensely old earth. To accomplish his first purpose Warfield draws on the work of Princeton Seminary professor William Henry Green, who had argued that the genealogies of Genesis should not be read as providing a chronology for the cosmos. To accomplish his second purpose Warfield draws on a broad range of reading in geology, biology, and physics to show the wide differences among scientists on this issue. Along the way Warfield reflects the scientific consensus of the early twentieth century that the theory of evolution solely by natural selection was insufficient to account for organic diversity.

Warfield closes this essay, with its appeal for a truce between biblical belief and scientific research, by reasserting his conviction that the kind of evolution that denies all divine actions of any sort is much more a philosophical claim than a product of science. On that point he remained fixed exactly where Charles Hodge had been in 1874 with *What Is Darwinism?* even as Warfield was going beyond Hodge

to find ways of accommodating modest forms of evolution within his Calvinistic theology.

Pervasive Bible Witness to Man's Origin in God's Creative Act.

It is not merely in the opening chapters of Genesis that the Scriptures teach that man owes his being to a creative act of God. This is, rather, the constant presupposition of every portion of Scripture, and is expressly asserted in numerous passages. No more striking indication of the fundamental place occupied by this assumption in the consciousness of the biblical writers could be afforded than that supplied by the way in which it underlies the expression of the religious emotions of the people of God in the Psalms. It lurks in the background of Psalm 8, that noble hymn in praise of man's dignity as the lord of creation. And when the voice of the psalmist sinks into a wail in view of the sad fate of man, the fact that it is God that has created him is made the very ground of the complaint: "Oh remember how short my time is: For what vanity hast thou created all the children of men!" (Ps. 89:47). The implication is that it is incredible that God should really intend only evil for the work of his hands. Another psalm makes God's creation of humanity the ground of a claim on him for blessing—because, as the psalmist phrases it (Ps. 119:73), "Thy hands have made me and fashioned me."

It is especially in the opening chapters of Genesis, however, that this constant teaching of Scripture is given in its most didactic form. It is thither therefore that we naturally go to find such direct declarations as that "God created man in his own image, in the image of God created he him; male and female created he them" (Gen. 1:27); and "the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul" (2:7).

Two Points of Conflict with Modern Speculation. No one possessed of religious instincts is likely to boggle over the great fundamental fact thus given expression. That we owe our being to God is one of the most intimate convictions of our consciousness and can be discredited only when our general religious nature is itself eradicated. But there are points in the biblical teaching as to the origin of man which do not appear to be imme-

diately safeguarded by the native instincts of our religious nature, and about which a certain amount of hesitancy seems to have become widespread under the pressure of modern anthropological speculation. On one or two of these we may perhaps profitably touch. And we shall select for this purpose a couple of points upon which the conflict of modern speculation and the scriptural account seems to many acute. We refer to the questions as to the manner in which man has come into being, and the time at which he may be supposed to have come into being.

Man a Divine Creation or Self-Created? To bring the first of these matters to its sharpest expression, we may say that for the last half-century modern speculation has exhibited a strong tendency to represent man as having been *self-created*, while the Bible represents him as having been *created by God*. That is to say, there has been a widespread tendency among men of scientific proclivities to think of man as having come into being by an evolution from preceding forms, as having been wrought out solely by the interaction of forces intrinsic in the evolving material; while on the contrary those who are taught by the Scriptures have been wont to think of man as brought into being by an act of divine power operating immediately and from without. When so conceived, the conflict between the two views is complete; and the opposition, evolution or creation, is absolute. We have here in fact only a new form of the old conflict between naturalism and supernaturalism, between materialism and theism. There can never be any conciliation between these.

The Contradiction in Part Imaginary. It does not appear, however, why this conflict should be pressed to such an extreme. Why should the evolutionist insist that the ascent to man must have been accomplished by the blind action of natural forces to the exclusion of all oversight and direction of a higher power? Why should the biblicist assert that the creation of man by the divine fiat must have been immediate in such a sense as to exclude all process, all interaction of natural forces? It does not appear that either is, on the basis of his own data, justified in such an extremity of position.

Even though the evolutionist had before him the whole series of generations through which he supposes man to have risen to humanity, he would be as little justified in asserting that this se-

ries of steps was accomplished apart from the directing hand of God as would a lover of domestic animals be justified in excluding the breeder as a factor in producing a pen of, say, prime Berkshire pigs or of white leghorn chickens, because, forsooth, he could trace their descent through generations, given which the result could not fail to follow. The problem still remains, Why was just this series of changes followed? And Mr. Andrew Lang's question remains in the highest degree pertinent: "Evolution may explain everything; but what explains evolution?"¹ The dogmatic exclusion of the directing hand of God does not lie at all in the facts as observed, but is imported from an antitheistic prejudice.

On the other hand, the biblicist is scarcely justified in insisting upon an exclusive supernaturalism in the production of man such as will deny the possibility of the incorporation of natural factors into the process. In Psalm 89:47, for example, God is declared to have "created all the children of men," and in Psalm 119:73 to have fashioned the psalmist himself. But surely no individual since Adam has been fashioned by the mere fiat of God to the complete exclusion of the interaction of natural forces of reproduction. And in the case of the protoplasts themselves there is significant allusion to a preexistent stuff out of which they were formed (Gen. 2:7). It does not appear that the emphasis of the biblical assertion that man owes his existence to the creative act of God need therefore exclude the recognition of the interaction of other forces in the process of his formation. It looks therefore very much as if the difference between the parties to this debate might be in large measure due to each party's emphasis on a single side of a composite transaction.

Insoluble Remainder of Conflict. We say the difference looks as if it might be in large part due to a difference of emphasis. For after all [is] said, it remains clear that the Scriptures do not represent man as merely an evolution from preceding forms directed to that great end by the guiding hand of God. For after all [is] said, you cannot get out of preceding forms, by however wisely led an evolution, anything that was not already potentially at least in

1. [Andrew Lang (1844-1912), Scottish writer and philosopher, studied folklore and mythology and maintained an interest in psychic research.]

them; and the Scriptures clearly represent man as something specifically new.

The creation narrative itself in the first chapter of Genesis makes this sufficiently plain. The utmost care is taken in it not only to mark the creation of man as the culmination and climax of the whole creative work, but to separate off his creation as something involving a very special immediacy of the divine action and resulting in a specifically new product. In the preceding cases it was enough to announce a fiat—"Let there be." Here there are pause and counsel—"Let us make." In the preceding cases there is indicated what may be looked upon as a sort of secondary production—"Let there be"; "Let the waters, or the earth, bring forth." Here there is asserted a direct act of God—"Let us make." In the preceding cases each thing is presented as made after its own kind. Here man is set forth as created after the kind of God—"God created man after his own image." In the preceding cases all that entered into each new creation may have come up from below. In man's case a double act and a double result are signalized. He was formed, indeed, from the dust of the ground, but he was not so left; rather, God also breathed into his nostrils a breath of life, as if there were something to be signalized as belonging to his nature which did not take hold of what was beneath him, but reached up rather to what is above. The impression that is made by such features of the creation narrative is strengthened and reinforced by subsequent Scriptures, until it seems quite within the limits of what is required to affirm that the scriptural account of the origin of man cannot be satisfied by any evolution pure and simple, that is, by any providentially led process of development, but requires the assumption of a direct intervention of power from on high productive of something that is specifically new.

Properly Limited Evolution Not Excluded. This conclusion does not necessarily involve the denial of the interaction of an evolutionary process in the production of man. It involves only the affirmation that this evolutionary process, if actual in this case, is not adequate for the production of the effect, even though the evolutionary process be theistically conceived, i.e., as the instrument of the divine hand in producing man. It requires us to call in, at least at this point, an act of God analogous to what we know as a miracle, a "flash of the will that can," and to insist that

in man God created something new, the elements of whose being were not all present even potentially in the precedent stuff.

The difference between the modern speculator and the bibli-
cist cannot be conciliated at this point until and unless the specu-
lator is willing to allow the intrusion into the course of evolu-
tion—if it be deemed actual in this case—of a purely supernatural
act productive of something absolutely new which enters into the
composite effect as a new feature. But there seems no reason why
the speculator should not admit this, unless he occupies a posi-
tion which is dogmatically antisupernaturalistic. The whole prob-
lem to him should turn on the simple question whether the cre-
ated being which we call man includes nothing in his nature but
what may be accounted for as a derivation from below. If there is
anything at all in man's complex nature which cannot be ac-
counted for as merely a more developed form of what is recog-
nizable in lower creatures, then we must assume an intrusion
from above. All that is not derived from nature must find its ac-
count in the entrance of the supernatural.

**Man a Creature of Yesterday or of Inestimable Anti-
quity.** Let us turn, however, to the second matter that has been
brought into keen debate between modern speculation and the
believer in the scriptural record of the origin of man. This con-
cerns the time of the apparition of man on earth. Modern specu-
lation has exhibited a tendency to represent man as having ex-
isted for a tremendously long period on earth, while readers of
the Bible resting on a *prima facie* view of its record have been in-
clined to represent him as of comparatively recent origin. To be
more specific, it has not been unusual for speculators to make im-
mense drafts on time in their estimate of the duration that has
been requisite for the attainment of the present condition of ani-
mate life on earth; they speak at times as if only hundreds or
thousands of millions of years would suffice. On the other hand,
students of the Bible text have been prone to compress the whole
life of the world into very narrow limits indeed, often dating the
creation of the globe only a few thousands of years back.

Professor Poulton in his address as president of the Zoological
Section of the British Association for the Advancement of Science
(Liverpool, September 1896), for example, treats as too short the
longest time asked by geologists for the duration of the habitable

earth, say, some 400 million years.² Dwelling on the number of
distinct types of animate existence represented as far back as the
Lower Cambrian period of geological time, and on (as he thinks)
the necessarily slow process of evolution, he stretches out the
time required for the process almost illimitably. On the other
hand, the estimates of the life of the world current among Bible
readers at large assign to it only something like a paltry six thou-
sand years or so. Here then seems to be a conflict of the most
acute kind.

**No Biblical Data for a Precise Estimate of the Age of the
World.** On more careful scrutiny, however, the necessity for such
a conflict appears far from stringent. It emerges that both sides
lack solid grounds for the estimates of time presented. On the
biblical side, for example, the material relied upon for construct-
ing a chronology of the earlier periods of the world's life seems to
be illusory. From Abraham down we have indeed the combined
evidence of somewhat minute genealogical records, such so-
called long dates as those of 1 Kings 6:1 and Galatians 3:17, and
several precise statements concerning the duration of definite
shorter periods, together with whatever aid can be derived from
a certain amount of contemporary extrabiblical data. For the
length of this period there can be no difficulty, therefore, in form-
ing a solid general estimate. But for the pre-Abrahamic periods
we are dependent entirely on inferences drawn from the geneal-
ogies recorded in the fifth and eleventh chapters of Genesis. And
it has been repeatedly shown, most thoroughly of all perhaps, by
the late Dr. William Henry Green in, for instance, a paper pub-
lished in the *Bibliotheca Sacra* for April 1890, that it is precarious in
the extreme to draw chronological inferences from these geneal-
ogies.³ The genealogies of Scripture were not constructed for a
chronological purpose, and any appearance they present of af-
fording materials for chronological inferences is accidental and il-

2. [Sir Edward Bagnall Poulton (1856–1943), English zoologist, defended Dar-
win's theory of evolution, supported Weismann's theories, and wrote extensively
on natural selection.]

3. [William Henry Green (1825–1900), Old Testament scholar at Princeton
Seminary, was the last of the conservative Old Testament scholars there to com-
mand international attention. Warfield is referring to Green, "Primeval Chronol-
ogy," *Bibliotheca Sacra* 47 (April 1890): 285–303.]