ON NATURAL CAUSES

Implications for a teleological view of the world

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Methodological naturalism is a guiding principle imposed on scientific methodology that limits science to the consideration of natural causes alone where "natural causes" explicitly means "nonsupernatural causes". Its principle role is to protect the teaching of biological evolution in public schools from challenges to its veracity posed by evidence of design in nature where, under the scrutiny of methodological naturalism, all such evidence is labelled "religion, not science". However, an objective consideration of the reasoning involved in scientific methodology leads to the conclusion that the meaning of "natural causes" should be based on what a natural cause is, not on what it is not. This observation surprisingly leads to the proposition that both law and design must be viewed as natural causes. Further, it is evident that law and design are unified in nature and if they are unified in nature, they must also be unified in the natural sciences. This leads to the proposition that if law and design are unified in the natural sciences, they must also be unified in science education in public schools. We conclude that methodological naturalism has a legitimate role in its oversight of the methods of science, but that oversight must be limited to the methods themselves, not the metaphysical implications that might arise as a result of those methods. Otherwise, methodological naturalism functions as metaphysical naturalism.

Methodological naturalism is a guiding principle imposed on scientific methodology that limits science to the consideration of natural causes alone. This means that science cannot appeal to the supernatural in explaining natural phenomena. This seems entirely reasonable, at least on the face of it.

I first read about this concept over twenty years ago while researching the extraordinary design-like features in biology discovered during the last half of the twentieth century, the challenge those discoveries presented to Darwin's theory of evolution and the controversy over the teaching of biological evolution in public schools. My personal perspective on these matters is probably aligned pretty much with that of most Americans who believe that our existence is the result of the creative work of a loving God. We are here by design, not as an accident of nature.

While the idea of a naturalistic scientific account of the origins of mankind as an alternative to the Genesis account may be offensive to the religious sensibilities of many, it is nevertheless a legitimate area of investigation for the natural sciences. However, if public education is going to instruct schoolchildren in the scientific establishment's answer to that question (evolution), then a very high standard should be set on the intellectual and academic integrity of the science behind those answers. But the opposite is true. The standard for intellectual and academic integrity as applied today concerning evolutionary biology is set so low that no amount of adverse evidence can bring it into question. It is in effect, unchallengeable. Clearly, there is more going on here than science education.

Supposedly, the purpose of methodological naturalism is to make sure that we do not entangle theistic religion with scientific methodology such that the methodology is skewed to favor the religion. Fair enough, but how do we know that methodological naturalism, by claiming to protect science from the prejudices of theistic religion, is not in reality imposing the prejudices of a naturalistic religion on science?

It was obvious to me that this was precisely the case. Given the extraordinary discoveries during the last half of the twentieth century of the design-like features that pervade all of biology, along with a fossil record that refuses to conform to the continuum model of the history of life required by Darwin², it was clear that evolution, as a scientific account of the origins of mankind, was overcome with insurmountable problems. Darwinism was in trouble. It needed a "protector", a god-father of sorts, a "fixer" that could intercede on its behalf. Methodological naturalism is Darwin's "fixer".

Thus, America's schoolchildren, under the province of methodological naturalism, are being indoctrinated into a naturalistic creation story that undermines the foundations of Christian faith. While it establishes its authority in the name of science, it is propped up with mountains of circumstantial evidence, endless "just-so" stories and censorship of any scientific evidence that might challenge its central premise: the natural origins of mankind. Further, it is historical in nature where most of the events and processes it claims to explain, have not, and in principle *cannot* be observed because they took place in the remote past long before man first walked on earth. How can you explain that which you cannot observe? Not a problem. Just whip up a good story.

Evolution is not a conclusion of the natural sciences. It is a dogma of naturalistic faith. For example, Humanism³, recognized by the courts as a religion⁴, explicitly incorporates evolution as central to its system of beliefs. Yet, it is taught in public education as undisputed scientific fact, it is given favored treatment and it is protected by the courts⁵ which have consistently held that all challenges to evolution are religiously motivated and are therefore unconstitutional.



What is meant by *natural causes* is central to understanding the role of methodological naturalism in the natural sciences. Without exception, relevant literature on this subject makes it clear that what is meant by a "natural cause" is a cause that is explicitly *not* supernatural. For instance, see Alvin Platinga⁶, a conservative Christian who offers a critical perspective, Barbara Forrest⁷ and John Rennie⁸ who champion the "official" view and Iris Fry⁹, a committed naturalist who openly admits that ...

Asserting the metaphysical neutrality of science is considered an 'essential strategy' in order not to antagonize the majority of Americans who are believers and to win them over to evolution.

While I have always suspected that there was something deceptive about the way methodological naturalism was applied in public education, I was stumped as to the nature of that deception. Finally, after over twenty years it finally came to me. It has been sitting there hidden in plain sight the whole time. Methodological naturalism is based on a metaphysical definition of what a natural cause *is* not, not a scientific definition of what a natural cause *is*. This realization then led to the obvious question: "If we reject the metaphysical definition of a natural cause based on what it is not, what then constitutes a scientific definition of a natural cause based on what it is?" Once this question is answered, we will be able to understand and the expose this deception.

The result was somewhat like the sun burning away the morning fog. What before had been murky and elusive, became clear. I am now able to make my case. But first, a brief review of the fundamental precepts of science is required to set the broader historical and philosophical context for that which follows. This context is fundamental. It cannot be ignored.

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Modern science arose in Christian Europe in the sixteenth and seventeenth centuries, there and nowhere else¹⁰. It was the rational Christian doctrine of a knowable created order that made this possible. No other philosophical or religious system of thought expressed a worldview that permitted the unique mindset necessary for science to emerge. This does not mean that modern science literally emerged *from* Christianity itself in terms of its doctrines and teachings. It just means that certain premises are required for the development of modern science and those premises were preexistent in the Christian view of the world, namely ...

- We have our existence in a created order.
- □ There is an objective reality that exists independent of the opinions and preferences of man.
- ☐ The rationality of the mind of man and the rationality of the natural world are the same rationality, and they have the same rationality because they have the same Author.
- □ There is a direct correspondence between that which the mind of man perceives and that which actually exists in the external world¹¹.
- \Box The universe is *intelligible* to the mind of man thus science is possible.
- ☐ Science seeks to discover "what is", not "what should be".

While the intelligibility of the natural world is a great mystery for naturalists, for the early Christian natural philosophers it was a self-evident truth. They not only held that the natural world was intelligible, they believed that it invites exploration. From the moment of creation, it was meant that mankind should come to an understanding of God's created order. The driving force behind their exploration was the conviction that by gaining knowledge of the created order, they were gaining knowledge of God.

Today the natural sciences affirm the basic premises of the teleological view of the world, its realist epistemology and the observational, experimental and inductive methodological tradition of Francis Bacon¹². Nevertheless, even in the face of the extraordinary success of science under the teleological view, and in the face of overwhelming evidence of design in nature, naturalists doggedly hold that there is no guiding intelligence behind the natural world and no scientific basis for believing that there is any ultimate meaning and purpose to our existence. We must accept that these things are all illusions, just the result of a long chain of unguided chance processes.

What then, constitutes a *scientific* meaning of natural causes?

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The cause-and-effect interactions that continually take place throughout the universe, from fundamental particles to atomic and molecular structure, to galaxies and galactic structure and everything in-between, are virtually without number. The *causes* at work in these seemingly endless chains of cause-and-effect

interactions are observable in nature and thus by definition are regarded as *natural causes*. In such interactions both *cause* and *effect* are observable.

We make a distinction however, between these natural systems of observable cause-and-effect interactions and the *underlying* physical laws, regulating principles, and causal mechanisms that govern their interactions. It is these underlying laws, principles and mechanisms that are the concern of science at this most fundamental level of the natural sciences and it is at this level that we seek an understanding of what is meant by *natural* causes. To gain such understanding we must look, as Bacon said, to the natural world itself.

We routinely refer to these underlying laws, principles and mechanisms as "causes" but it only takes a cursory examination to show that physical laws and regulating principles alone cause nothing. It is *mechanisms* that are the causes of physical phenomenon, and it is an understanding of those mechanisms in terms of the physical laws and principles that govern their actions that constitute scientific explanations of fundamental phenomena in the natural world. As for these causal mechanisms, they are due to the existence of potential energy fields (like gravity) and the forces that arise from those fields. The spatial and temporal manifestation of these forces in atomic and molecular structure, along with the properties of spacetime itself, account for the observed properties of matter and the behavior of the natural world. We may rightly call them "natural" forces in that they are not just resident and operative within the natural world, they are integral parts of the natural world itself. They are part of its makeup.

No one questions the ability of these natural-law-based systems to account for the mechanics of the nonliving world, but are they sufficient in and of themselves to account for life and things like consciousness, mind and self-awareness? How does science explain intelligence and reason, and the higher things of mind like purpose and meaning, the sense of good and evil, right and wrong, love and hate, joy, wonder, truth, and faith? And what about free-will? Is free-will just an illusion? Are such things simply emergent properties of the natural world? Nonsense.

The naturalistic view holds that life and mind and all that mind entails are natural phenomena since they of necessity emerged from matter and as such are (so they say) simply a result of our evolutionary past and fully explainable in terms of unguided chance processes alone. The monotheistic view of the world would simply say that these things were preexistent in the mind of the Creator and are an intrinsic part of our being because we are created in the image of God.

Rene Descartes described mankind in terms of a mind-body dualism¹³. The human body is made of material nonliving substance that has (so far as we know) no innate capacity for consciousness, self-awareness, sensation, and reasoning. Mind, which is immaterial, not only *inhabits* the body, it *possesses* the body giving it consciousness and life. However, if mind arose from matter through natural means, then what is the nature of that connection between mind and body? How does inanimate matter take on consciousness?

The naturalist rejects Descartes' mind-body dualism and assumes that there is nothing in the natural world, including living organisms, that can be equated to anything more or anything different than the sum of its parts (the *reductionist* view). Whatever the material constituents may be that make up a living organism, it is a given that those constituents were present in the material world before that organism was formed. Materially, nothing new or different has been added, and nothing has been taken away. Over time (so they say), complexity of arrangement developed and from this complexity, life emerged. Naturalists *know* that this is true because it *has* to be true. The alternative is unthinkable.

While it may be true that observability and testability are the crucial activities that underlie scientific methodology, and while it may be true that science cannot observe supernatural causes, it is also true that there are essential aspects of nature which themselves are nonmaterial and therefore cannot be directly observed by science—for instance, things like physical laws, principles and causal mechanism. These laws, principles, and mechanisms not only exist as abstract conceptions of the mind, they are also present and operative *i*n the natural world. They do not just *appear* to be laws, principles, and mechanisms. They *are* laws, principles, and mechanisms, and scientifically they are treated as integral parts of the natural world because they are operative within the natural world. We know they are operative within the natural world because we observe their effects in the natural world.

Further, the behavior of these laws, principles, and mechanisms are rigorously described in abstract mathematical terms where the parameters and functional form of the mathematical equations—which themselves are nonphysical and can only be "observed" and understood within the realm of mind—are deeply embedded in physical reality. But if we cannot observe the laws, principles, and mechanisms that govern the operation and behavior of the natural world, how then is science to proceed?

Causal mechanisms and their governing laws and principles are *inferred* through observation of the *effects* they produce in the natural world. We don't see the laws, principles, and mechanisms themselves; we see their effects and from those effects we infer their existence and their properties. Neither do we observe the mathematical equations of physics in nature. Rather, we observe relationships between physical parameters that can be described mathematically, and from those observations we infer the mathematical form of these relationships and the values of any physical constants that may arise, all determined through observations in which physical parameters are quantified through carefully designed experiments.

Science observes effects and infers causes.

Newton's law of gravity is an example of a physical law. Conservation of energy is an example of a regulating principle, and the attractive forces between bodies resulting from their gravitational fields is a mechanism that acts in the natural world. Through this kind of reasoning, we conclude that all observable natural phenomena have natural causes. They are natural causes because they are present and operative in the natural world, and we know that they are present and operative in the natural world because we observe their effects. So, when it comes to the fundamental laws, principles and mechanisms of nature, it is in this sense and only this sense that we can say that science "observes" causes in nature.

So, what do we mean by *natural causes*? Let us proceed by agreeing that we should assume a model of the natural world as a closed, self-contained system of cause-and-effect relationships that operates moment-by-moment on its own without intervention from outside that system by a transcendent intelligent agency. This closed self-contained model of the natural world also provides the appropriate framework for an understanding of scientific methodology. Accordingly, a definition of natural causes that "fits" that framework and which is constructed independent of, and without reference to, any metaphysical assumptions is ...

Natural causes are those causes that are present and operative in the natural world that produce observable effects that can be subjected to scientific study.

This rational definition of natural causes makes no judgment one way or the other about the supernatural. If a cause is present and operative in the natural world such that it produces observable effects that can be subjected to scientific investigation, then scientifically it may rightly be called a "natural cause". Natural causes so defined are restricted to the *narrow* question concerning the operation and behavior of the natural world and make no reference to the *broader* ontological questions concerning the ultimate cause or nature of the natural world. The ultimate cause behind these natural causes, whether it be material or supernatural, is forever beyond the reach of the natural sciences and consequently forever off limits to methodological naturalism. Methodological naturalism can only go where science can go and science cannot penetrate the transcendent realm. The legitimate concern of methodological naturalism is scientific methodology, not the ontology of the natural world.

Scientifically, this understanding of natural causes is consistent both with the views held by early Christian natural philosophers who believed in God, and present-day naturalistic scientists who do not. We can accept that in principle methodological naturalism is a metaphysically neutral concept but *only* if: (1) it employs a scientific definition of natural causes based on what a natural cause *is* rather than what it *is not*, (2) it is restricted to the narrow questions concerning those things which can be observed by the methods of science, and (3) it is indifferent to metaphysical implications that may arise from scientific observations, *even if they are teleological in nature*. Otherwise, it functions as metaphysical naturalism.

How then should science treat the design-like features observed in biology? It turns out that biologists provided that answer many years ago. In the face of evidence that simply could not be ignored, scientists in cellular biology set aside whatever antagonism they may have had toward the idea of design in biology and chose to get on with the science. Because evidence of design in biology was so pervasive and so compelling, they followed that evidence and it led them to an extraordinary new field of research called *systems biology*.

The field of systems biology that emerged in the biological sciences during the 1990's was founded, not on chance-based Darwinian principles, but on design and information principles taken from the well-established fields of systems engineering and information theory. It may be that many of these scientists give a metaphysical nod to Darwin but in their science, they follow design principles and no one calls them heretics because they do. Today in the biological sciences, systems biology is where the cutting-edge research is performed. It also provides a de facto admission that design is present in the natural world.

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Reason tells us that whatever the ultimate cause of the universe might have been, the universe itself will reflect the nature of that cause. The material world will testify as to its true ontological nature: meaningful or meaningless, purposeful or purposeless, teleological or materialistic. It is what it is. We cannot force it to be other than that which it is no matter how abhorrent the ontological message of the universe might be to some.

Here at the boundary between the material and nonmaterial realms, between the natural and the supernatural, between the universe and its cause, between life and its cause, and between mankind and his

cause, science encounters its limitation. That limitation is defined by what science can and cannot observe. This boundary is like a *veil*, a veil beyond which science cannot see. We may make inferences about that which lies beyond the veil based on what we observe on this side of the veil, but scientifically, that is as far as we can go. Here, on this side of the veil, science, under the watchful eye of methodological naturalism, may make discoveries that have teleological implications, but methodological naturalism has nothing to say regarding those implications. Its license pertains only to scientific methodology, not the metaphysical implications of its findings.

This is where the deception takes place today. This deception not only affects science education in public schools, it also affects First Amendment jurisprudence. Methodological naturalism pretends to guard scientific methodology when in reality, it guards naturalism from the threat posed by evidence of design in nature. It poses as a methodological device but is exercised as a metaphysical weapon.

Our expectation is that there will be a deep coherence between what we observe on this side of the veil and that which lies beyond the veil. If "nothing" lies beyond the veil, then we might expect that there will be nothing on this side of the veil to give evidence that there is something "over there". We can never directly confirm this coherence scientifically, but it is reasonable to believe that it might be true. If there is "nothing" beyond the veil then naturalism must be true and the natural world can have no ultimate meaning beyond itself. However, logically, if the world has no meaning, we could never know that it has no meaning. As C. S. Lewis noted, "If the whole universe has no meaning, we should never have found out that it has no meaning; just as, if there were no light in the universe and therefore no creatures with eyes, we should never know that it was dark. Dark would be a word without meaning."

If naturalism is true, how could we know it is true? Naturalism would be a word without meaning, yet, here we are talking about it as if it has meaning. Lewis' reasoning compels us to conclude that naturalism is a *meaningful* concept and therefore *cannot* be true.

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The ultimate origin of the physical laws we see at work in the natural world are generally of little concern to the normal practice of the scientist and more a subject of interest to philosophers and theologians. But all—scientist, philosopher, and theologian alike—should be quite interested in the obvious: the existence of physical laws in nature infers the existence of a *law-giver*. As argued by William Paley¹⁵, the existence of a *watch* necessitates a *watchmaker*. Likewise, the existence of *law* necessitates a *law-giver*. Even Einstein embraced this view. In a letter¹⁶ to M. Berkowitz in 1950, he wrote "God is a mystery. But a comprehensible mystery. I have nothing but awe when I observe the laws of nature. There are not laws without a lawgiver ...".

Today naturalistic scientists reject the idea of a divine law-giver for purely metaphysical reasons while accepting the place of physical law in the natural world quietly assuming that since physical law is a "natural" phenomenon, then its ultimate origins must also be "natural", i.e., "non-supernatural". But such reasoning is non sequitur. One does not necessarily follow the other. It all depends on what is meant by "natural causes".

Design is also an abstract conception of mind. In fact, design and law are of the same cognitive category. Why should design be treated differently than law? Is design, like law, a real part of the natural world that

is present and operative within the natural world that produces observable effects that can be subjected to scientific investigation? We accept the concept of "law in nature", why can't we treat the concept of "design in nature" in the same way? Everyone agrees that there are natural laws. Why not natural designs?

Transcendent design—assuming there is such a thing—entails the specification and ordering of the natural world. It is supposed that this specification and ordering is uniform and fixed having been predetermined and imposed on the natural world from the beginning thereby providing the framework within which universal and unchanging natural laws and principles operate. These laws and principles regulate and control the physical processes that take place in the natural world. From the teleological perspective, while the functions served by law and design in nature are different, they are interdependent, working together to serve an intended end, that end being our present world.

Naturalists say that trying to blend the scientific (law) with the teleological (design) is nonsense, like blending science and religion. However, it is self-evident that law and design are similar in important ways. Both are abstract conceptions of mind, both are of the same cognitive category, the effects of both are observable, and both are subject to the observational, experimental and inductive methodological tradition of Francis Bacon. And yes, both point to intelligent agency. So, it is reasonable to suppose that law and design, in respect of their similarities, should be treated the same way in the natural sciences. That would also require that they receive the same treatment under methodological naturalism *and* in public education.

But they do not. Given that they are of the same cognitive category, why is the concept of *law* permitted in science education in public schools while *design* is prohibited? We already know the "official" answer: "design is religion" and it goes without saying that "law is science".

These properties concerning the nature of *law* introduce an interesting dilemma. Given the implications for a *law-giver* that arise from the appearance of physical laws operating in the natural world, it would seem that the scientific establishment would object because of its teleological implications. But the establishment is understandably silent on this question because science, without physical laws, is stripped of its great explanatory power. Further, we would find ourselves once again wandering in the wilderness of Aristotelian natural philosophy¹⁷ thereby throwing out the basis for 500 years of spectacular scientific advances. So, why does the concept of *law* get a "pass" from methodological naturalism while the concept of *design* is fervently condemned?

The concept of law gets a "pass" from methodological naturalism because of its historical association with the *mechanical philosophy* that emerged in the seventeenth and eighteenth centuries from Newton's laws of mechanics. While Christian natural philosophers were eventually able to reconcile the mechanical philosophy with the teleological view of nature, radical enlightenment philosophers adopted that philosophy as a platform for advancing their naturalistic view of nature. That philosophy lives on today in public education. Thus, we see that it was this historical contingency that set the stage for the present controversy.

There is no conflict between law and design in the natural sciences. The conflict is between two metaphysical views of the world. A naturalistic meaning of natural causes is necessary to the defense of the naturalistic view of the world and is based, not on *what a natural cause is*, but on *what it is not*, where *what it is not* is "supernatural". It is exclusionary as opposed to definitive. A scientific and metaphysically neutral definition of natural causes must be based on *what it is*, "an integral part of the natural world that is present and operative within the natural world". It is definitive, not exclusionary.

We detect both *law* and *design* in nature through observation, experimentation and inductive reasoning, and both point to intelligent agency. The justification for treating *design* as an integral *part* of the natural world is exactly the same as it is for treating *law* as an integral *part* of the natural world. You cannot explain the natural world apart from both law *and* design. They are integral parts of a single whole. You may argue that the appearance of law and design in nature are the result of unguided chance processes alone, but sound reasoning forbids that you throw out one (design) under the accusation that it is "religion" while keeping the other (law) under the claim that it is "science". Likewise, we must conclude that whatever religious status you assign to *design*, you must also assign to *law*. If you say that "design is religion", you must also say that "law is religion". That of course in nonsense. It does however, serve to emphasize the irrationality of the current paradigm, "design is religion".

Both law and design are present and operative in nature, and both are nonphysical conceptions of mind that are unobservable except through their effects. Law points to a law-giver. Design points to a designer. Just as we establish that *law* is present and operative in nature by inference from its effects, likewise we establish that *design* is present and operative in nature by inference from its effects. This rational meaning of natural causes leads to a general principle ...

If you can observe it, it is natural, and if it is natural, it has a natural cause, and whether that cause reflects law, whether it reflects design, it can be subjected to scientific investigation.

If we are to fully understand the place of law and design in the natural sciences, they must be taken together, *just as we find them in nature*, where, from quarks to living creatures to the cosmos, they act together to account for the order and rationality we observe in the natural world. This leads us to an inescapable conclusion: law and design are unified in nature. If they weren't unified in nature, all would be chaos. Further, the case can be made that because of the extraordinary anthropocentric fine-tuning observed throughout nature, every aspect of the natural world, both living and nonliving, appears to be "fitted" to conform to a single unifying principle: the centrality of the place of mankind in the cosmos. It seems that we are what the cosmos is all about. What possible objection could the scientific establishment have to such a proposition other than the fact that it challenges their naturalistic view of the world?

In his book *Nature's Destiny*, Michael Denton¹⁸ argues convincingly for the teleological view of nature and the central place of mankind in the cosmic scheme of things. He also expresses the belief that future scientific advances would confirm that thesis with absolute certainty. The present argument for the unification of law and design in nature contributes persuasively to Denton's thesis.

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Any theory about the origins of mankind, whether naturalistic or teleological in nature, goes to the very heart of what it means to be human. It touches on our understanding of our place in the cosmos, our view of good and evil, how we should live our lives, how we should treat our fellow man, our view of eternity and whether there is meaning and purpose to our existence. Darwinism is such a creation story, a naturalistic creation story, one that reaches far beyond the boundaries of science where its principle effect (whether intended or not) is the indoctrination of school children into a naturalistic religion that (without saying so)

provides students with a "scientific" alternative to the Genesis creation account. But, it does something else (also without saying so). It touches (whether intended or not) on our views concerning the proper relationship between the people and their government, i.e., the social contract, and the political philosophy on which the terms of that contract are based.

The American founding was unique in all of history. What made that founding so unique was the terms of the social contract upon which it was based. Our nation was founded on natural law principles that presuppose a certain relationship between the people, their God and their government. These precepts derive directly from the Declaration of Independence, namely: the supremacy of the Laws of Nature and of Nature's God; the equality of all men in the eyes of God; the natural Rights given by the Creator to all men; and the place of government ordained by God in protecting the natural Rights of men. The Founders believed that it was only through a founding in these natural law precepts that the people could secure and enjoy the blessings of liberty.

Acknowledgement of God as Creator and Father of all mankind was central to the American founding. Yet in public schools, our children are being taught a "scientific" creation story about the origins of man based on Darwinism that explicitly has no place for a divine creator. If Darwin was right, then there is no place for a creator in the social contract. Neither are there self-evident truths. We have no so-called *natural* rights, the state (not God) is supreme, and the principles of justice are established according to the laws of men rather than the laws of God. Thus, the effect of teaching the Darwinian creation story in public schools is to undermine both the foundations of Christian faith and the founding precepts of the American Republic, thus preparing young minds for life in a secular state governed by progressive-socialistic philosophies.

So, if your objective is the overthrow of the American Republic from the inside out and to then establish a secular socialistic state in its place, this is where you start: with the children, in public schools where you teach them about Darwin's naturalistic theory of the origins of mankind and purposely ban any evidence that might suggest that there might be a guiding intelligence behind it all. It should be no surprise that after over thirty years of Darwin-only educational policy mandated by the Supreme Court, such ways of thinking are now well established in our state and national politics.

The road to socialism is smooth, down-hill, wide, seductive and with a tailwind. But it is one-way. Or, as blogger Larry Lambert put it¹⁹, "The problem with socialism is that you can vote your way into it but you need to shoot your way out of it". I might add the footnote, "...assuming you still have guns to shoot".

Public schools acknowledge the implicit trust that parents place in public schools that the classroom will not be used to indoctrinate their children into a particular religious view of the world. That trust extends as well to political philosophies, where parents assume that the public school classroom will not be used for political indoctrination. Nevertheless, in complete disregard of this trust, the teaching of Darwinism in our public schools as undisputed fact undermines both theistic religious faith and the founding precepts of the American Republic.

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In summary, the case has been made for a *scientific* rather than a *metaphysical* meaning of natural causes based on what a natural cause *is*, not what it *is not*. For every natural effect observed in nature, there must be a natural cause, irrespective of its metaphysical implications. We thus conclude that ...

With respect to fundamental causes, what is meant by a "natural cause" must be based on observed effects, not a metaphysical rule.

This scientific approach to defining natural causes leads to the proposition that since law and design are both of the same cognitive category, and because both produce distinctive effects that infer correspondingly distinctive causes (law is inferred from law-like features, design is inferred from design-like features), then both must be viewed as natural causes. Further, the extraordinary ordering and anthropological fine-tuning of the universe compels the proposition that law and design are unified in nature around a single principle: the centrality of the place of mankind in the universe.

If law and design are unified in nature, they must also be unified in the natural sciences, and if they are unified in the natural sciences, they must likewise be unified in the teaching of the natural sciences in public education. Methodological naturalism may be imposed on scientific methodology, but its legitimate regulatory function over methodology cannot be subject to the metaphysical implications that might arise as a result of that methodology. To license such power would constitute imposing a naturalistic metaphysics on scientific methodology. Methodological naturalism must therefore be *indifferent* to metaphysical implications whether they be naturalistic or teleological. These implications may be relevant to a philosophy of nature but they are off-limits to science and its methods.

The two great explanatory principles of the natural world are not *law* and *chance* but *law* and *design*. In this causal system, *chance* is still important, but it is axiomatic that in a rational universe *chance* must forever be confined to the limitations imposed by the physical laws and principles of the system within which it operates. Chance, because of its contingent nature, can never be more than a secondary cause. Further, no rational argument or experiment has ever proven otherwise²⁰.

By all appearances and in light of the lack of any plausible naturalistic account of life, mind, and consciousness, it is reasonable to suppose that law and design had their origins in a preexisting transcendent mind with the capacity to create our present material universe according to some master plan that was laid down before the beginning of time to fulfill an intended end. This proposition arises, not from religious dogma or revelation, but from natural philosophy alone. Further, a conclusion of natural philosophy cannot, for First Amendment purposes, be treated as *religion* just because it has teleological implications. The fields of philosophy and religion may overlap in important ways, but natural philosophy cannot on that basis be classified as religion.

Finally, nothing here is intended to suggest that Darwin's theory of evolution should be banned from instruction in our public schools. However, if it is to be taught, it must be taught objectively, on the basis of the evidence. Further, students must be exposed not only to evidence that supports Darwin's theory, but evidence that is contradictory to his theory as well. There is no legitimate reason to purposely mislead students regarding the problems with the fossil record or the inability of natural selection to account for the extreme complexity of living organisms. In addition, in respect of religious neutrality and our founding precepts in natural law, students and their parents should also be informed of the metaphysical challenge Darwinism presents to both the teleological view of nature and our founding precepts. Otherwise, we must assume that the purpose of teaching Darwinism to schoolchildren is to indoctrinate them into a naturalistic view of the world and a secular progressive-socialistic political philosophy.

NOTES

- 1. MS Engineering. Research scientist, weapons effects, atomic physics. Author, *The Gospel of the Cosmos*, Second Edition, Liberty Press, (to be released, summer, 2020). Fifty years' experience in government and industry. Contact joerenick@outlook.com. I have no formal education in the philosophy of science so in that regard, I am a novice. Nevertheless, sometimes even novices come up with new ideas. I also delight in challenging the boundaries of conventional thought.
- 2. Robert L. Carroll, *Patterns and Processes of Vertebrate Evolution*, Cambridge Paleobiology Series, Cambridge University Press, 1998, pp. 1–18. Carroll's publication has become somewhat of a minor classic in describing the fundamental problems associated with trying to shoe-horn vertebrate paleontology into Darwin's description of the history of life.
- 3. Humanist Manifesto III at www.AmericanHumanist.org. I make a point of Humanism because under the First Amendment, it is no less a religion than Christianity. All religions have a creation story. This holds for Humanism and the evolutionary account of the origins of man just like it holds for Christianity and the Genesis account of the origins of man.
- 4. Torcaso v. Watkins, 367 U.S. 488, 495 n. 11, (1961).
- 5. Francis J. Beckwith, *Law, Darwinism and Public Education*, Rowman and Littlefield, (2003). Also, David K. DeWolf, et al., *Traipsing into Evolution*, Discovery Institute Press, 2006.
- 6. Alvin Platinga, "Methodological Naturalism?" *Origins and Design*, Vol. 18, No. 1 & 2, at http://arn.org/docs/odesign/od181/methnat181.htm and http://www.arn.org/docs/odesign/od182/ methnat182.htm. This is a lengthy analysis in two parts by a notable and universally respected Norte Dame philosopher of science, giving a conservative Christian view.
- 7. Barbara Forrest, "Methodological Naturalism and Philosophical Naturalism: Clarifying the Connection," *Philo* 3 (2):7–29 (2000). Forrest is a retired professor of the philosophy of science at Southeastern Louisiana State University, presenting the naturalistic view. She is a leader in the American Humanists movement and was called as an expert witness in the 2005 Kitzmiller "Intelligent Design" case (*Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005).
- 8. John Rennie, "15 Answers to Creationist Nonsense," Scientific American, July 2002.
- 9. Iris Fry, "Is science metaphysically neutral?", *Studies in History and Philosophy of Biological and Biomedical Sciences*, Department of Humanities and Arts, Technion-Israel Institute of Technology 43 (2012) 665–673.
- 10. God & Nature, *Historical Essays on the Encounter between Christianity and Science*, Edited by David C. Lindberg and Ronald L. Numbers, University of California Press, 1987. A landmark collection of essays in dispelling the warfare mythology.
- 11. This was the *realist* epistemology that undergirded classical physics up until early twentieth century.
- 12. C. S. Lewis, Mere Christianity, Harper One, 1952, 39.
- 13. Rene Descartes, Meditation on First Philosophies (1641).
- 14. Francis Bacon, *The New Organon or True Directions Concerning the Interpretation of Nature*, Part XLIII (1620).
- 15. William Paley, Natural Theology, DeWard Publishing, 2010.
- 16. William Hermanns, *Einstein and the Poet. In Search of the Cosmic Man*, Brookline Village MA: Branden Books, 1983, p. 60.

- 17. Aristotle's physics was not based on the fixed laws of nature. He held that objects had within them some sort of "inner striving" which drove them toward some "intended end" or perfected state. An analogy can be made concerning human ideas of morality where we have an "inner striving" that urges us toward that which is good.
- 18. Michael Denton, Nature's Destiny, The Free Press, 1998, xix.
- 19. Larry B. Lambert, http://symbolic-mirage.blogspot.com/2019/01/threat-assessment.html.
- 20. With respect to speculations about the possible influence of quantum uncertainties on biological processes, that is all they are, speculations.