

Naturalism in the Natural Sciences: A Christian Perspective

other things. I let go of my pencil and it immediately falls to the floor. Why? It would not be scientifically enlightening to say, "God made it that way." Similarly, scientists would not explain a particular rainstorm in terms of an Indian's rain dance or a farmer's prayers. Rainstorms are explained in terms of natural factors, such as air pressure and temperature—factors that themselves depend on other natural factors.

In brief, explanations in the natural sciences are given in terms of contingent, non-personal factors within the creation. If I put two charged electrodes in water, the hydrogen and oxygen will begin to separate. If I were writing a lab report (even at a Christian college), it would be unacceptable to write that God stepped in and made these elements separate. A "God hypothesis" is both unnecessary and out of place within natural scientific explanations.

The naturalistic focus of the natural sciences is simply a matter of disciplinary method. It is certainly not that some scientists have discovered that God did not make phenomena occur the way they do. The original causes or ultimate sources of the patterns of nature are not proper concerns within any of the natural sciences—though they remain a wholesome and legitimate concern of many natural scientists. The natural sciences are limited by method to naturalistic foci. By method they must seek answers to their questions within nature, within the non-personal and contingent created order, and not anywhere else. Thus, the natural sciences are guided by what I call *methodological naturalism*.

Methodological naturalism is quite different from metaphysical naturalism. Metaphysical naturalism is a philosophical perspective that denies the existence of a transcendent God. Methodological naturalism does not deny the existence of God because this scientific methodology does not even raise the question of God's existence. Unfortunately, these two kinds of naturalism have often been confused. As a result, it has seemed to the philosophically careless as if the natural sciences under the guidance of methodological naturalism have provided evidence for metaphysical naturalism. This confusion is regrettable and certainly inexcusable.

The natural sciences are committed to the systematic analysis of matter and energy within the context of methodological naturalism. As a result, if a natural scientist believes that there is no God and that only matter and energy exist and that only explanations within natural science are valid, then she cannot defend her opinions on the basis of any natural science because all these claims go far beyond the well-accepted methodological capacity of the natural scientific enterprise. Moreover, for the very reason that the scientific enterprise is limited to naturalistic explanations, we should all at least be honestly open to other types of explanations when we are not working in our laboratories or writing our natural scientific theories.

An example might make this methodological limitation on the natural science a bit clearer. If you ask me after a club meeting to explain why I raised my hand at a particular vote, I might give you a detailed account of the physiological brain states, the electrical charges traveling through neurons, the contractions of triceps and pectoral muscles, the movements of bones and cartilage, etc. That is, I could detail a true biological explanation of the event. But such a

Naturalism as a world view is antithetical to Christianity, yet Paul de Vries claims that a certain kind of naturalism not only is consistent with Christian belief but actually is congenial to it. Mr. de Vries teaches philosophy at Wheaton College.

By Paul de Vries

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Two kinds of naturalism

WHAT IS THE BUSINESS of natural scientists? It is the discovery of explanations of natural phenomena. Natural scientists do not merely describe events; they seek to place events in the explanatory context of physical principles, laws, fields. However, only certain kinds of explanations make for acceptable natural science. Within the natural sciences, explanations refer only to natural objects and events. The personal choices and actions of human and divine beings are thereby excluded.

Initially, this exclusiveness of the natural sciences could well disturb a Christian scholar who has been taught to believe that our relationships to God should be integral to every aspect of our lives—including work in the natural sciences. Praise to God should always be on our lips, no matter what our activity. But if we cannot talk about God within the enterprises of the natural sciences, then our scientific work seems hardly Christian. Christian scholars can find themselves on the horns of a dilemma—if we incorporate God-talk in efforts within the natural sciences, our work is no longer scientific.

Must a Christian, who is a natural scientist live a double life? Must she be torn between the scriptural demand to glorify God in all things and the professional demand to be silent about God in matters scientific? I think not. The purpose of my philosophical musings here is to defend the claim that Christians should be quite comfortable with a specific kind of naturalism within the natural sciences.

The goal of inquiry in the natural sciences is to establish explanations of contingent natural phenomena strictly in terms of other contingent natural things—laws, fields, probabilities. Any explanations that make reference to supernatural beings or powers are certainly excluded from natural science. Apart from mathematical terms and truths of logic, things to which our theories in natural science refer are always contingent; each of them remains dependent on

display of scientific precision would more likely irritate you than answer your question. In asking me to explain my vote, you would be interested in concerns outside of the naturalistic foci of the natural sciences. You would be interested in knowing about my purposes and reasons—concerns properly avoided by, for example, a biological explanation. I can explain an event within the constraints of methodological naturalism, and that explanation could be true and complete, but could still fail to answer a legitimate question. Many legitimate questions concerning events in our world fall outside the realms of the natural sciences.

It is fascinating that at the present time there are two notable groups of people that seek to violate the natural sciences: the devotees of evolutionistic scientism on one hand and the devotees of creationistic biblicism on the other—groups represented by Carl Sagan and Henry Morris, respectively. To suit their own purposes, these groups seek to lead natural science away from its methodological naturalism, away from its commitment to systematic analysis of matter and energy. If we respect the proper role of the natural sciences, we will protest both the biblicists' and evolutionists' proposals. Whether they are conscious of this or not, both of these groups are exploiting the good name of the natural sciences for their own ideological programs. In contrast, the success of methodological naturalism provides no threat to Christian truth.

A point of contrast

Quite distinct from the perspectives of either evolutionistic scientism or creationistic biblicism, some of the work of the well-respected Christian philosopher Nicholas Wolterstorff seems incompatible with methodological naturalism in the natural sciences. In his *Reason within the Bounds of Religion* (1976), Wolterstorff describes and defends certain roles for what he calls "control beliefs." According to him, control beliefs function in two ways: because we hold them we are led both to reject some theories and to devise other theories.¹ In general, we structure various theories in order that they will not be inconsistent with, but rather "comport well with" our particular control beliefs.² Moreover, Wolterstorff claims that the "religious beliefs of the Christian scholar ought to function as *control* beliefs within his devising and weighing of theories."³

Should Christian religious beliefs guide the actual professional work of Christian scholars within the natural sciences? Wolterstorff believes they should do so in order that conformism with respect to science may be avoided. After all, we should not assume, "from the standpoint of authentic Christian commitment," that science is, and always will be, just right as it is. That would make us spiritual "brothers" with the logical positivists⁴—even though logical positivists fortunately now form an endangered species! Wolterstorff wisely points out that "no theory ever stands alone," for every scholar "confronts the world with a

¹Reason within the Bounds of Religion (Grand Rapids: Eerdmans, 1976), 64.

²Reason, p. 64.

³Reason, p. 66, his emphasis.

⁴Reason, p. 20.

whole web of theoretical and non-theoretical beliefs."⁵ When a contradiction is found between an attractive theory and a scholar's present web of beliefs, either that theory or some present belief must be surrendered.⁶

Given his vision of how control beliefs should work, Wolterstorff bemoans the failure of Christian scholars to provide, from their religious commitments, formative direction within the sciences.⁷ He thinks it is sad that a general commitment to God as Creator "suggests nothing at all by way of any research program *within* biology."⁸ According to him, the causes of such failings are Christian scholars' lack of understanding of the role their control beliefs play, their failure to develop Christian patterns of thought, their lack of knowledge of Christian theology and Christian philosophy, and their weakness of imagination.⁹

Without a doubt, these deplorable conditions have been all too common among Christian scholars—both within and outside the natural sciences. Despite such an accurate assessment, Wolterstorff's own vision is beset by several flaws. Three serious weaknesses are endemic to his perspective, making the literal following of his attractive vision neither desirable nor possible. Let me briefly explain why, before I myself use some Christian "control beliefs" to defer the use of methodological naturalism in the natural sciences.

First, Wolterstorff's stated commitment to avoid contradictions and to enforce coherence among all our various beliefs is certainly virtuous, but also immeasurably ambiguous. Because of the diversities of our "language-games," a proposition in one theory within one discipline may only seem to contradict a proposition in another theory within another discipline. The "contradiction" is often only apparent. Similarly, a claim within a scholarly theory may only seem to contradict a historic Christian doctrine. It would be easy to be seduced by the surface grammar, and mistakenly compare "apples with oranges"—or even with the color orange! For example, as a doctrine of physics we may well accept that the total amount of matter and energy is constant. For the discipline of physics this doctrine is true and reliable. Nevertheless, Christians, whether physicists or not, generally believe that God brought matter and energy into existence. So it seems that matter and energy have not always been constant. This religious claim does not contradict the aforementioned accepted doctrine of physics because these two beliefs never touch—they are found in markedly different contexts. The presumed authority of religious control beliefs over the-oretic claims is largely hamstrung by legitimate disciplinary boundaries.

It is also important to note that in more recent writings Wolterstorff has significantly softened his commitment to coherence. For example, in "Can Belief in God Be Rational If It Has No Foundations?" he repeatedly downplays, as an expression of his present Reidian approach, the importance of logical coherence,

⁵Reason, p. 39.

⁶Reason, p. 39.

⁷Reason, p. 101.

⁸Reason, p. 101, my emphasis.

⁹Reason, pp. 101–104.

reasoning, and rationality.¹⁰ He is now more aware of some of the potential pitfalls of attempts to establish coherence.

Second, Wolterstorff himself only poorly demonstrates the authority of control beliefs over theory development and acceptance. Certainly his vision may still be right even if he provides no good example of how it should be followed, but the lack of any good example raises serious questions about how his claims should be either understood or applied.

On the one hand, he presents only two cases in which he claims Christian control beliefs should affect theory selection: Freudian and behaviorist psychological theories should be rejected.¹¹ Perhaps he is right, but his reasons are far from convincing. Even if these two schools of thought involved a denial of "human freedom and responsibility," that denial could be compatible with some Christians' control beliefs. More importantly, neither Freudian nor behaviorist psychology requires the denial of human freedom and responsibility. Of course, human behavior is not exempt from causal factors; yet Freudian psychoanalysis seeks to define for patients areas where they can gain control. Psychoanalysis seeks to extend the areas of rational freedom and responsibility through discovering the very "causes" that the patient can control.¹² Even behaviorism within psychology can be correctly understood as a way of analyzing "a person as a physical system"¹³ without asserting that a person is *only* a physical system. Psychological behaviorism is an attempt to make a type of psychology a natural science, under the constraints of methodological naturalism, and this attempt has certainly produced some valuable discoveries. However, what Wolterstorff and I both object to are the careless philosophical and "religious" pronouncements of people like B. F. Skinner when they claim that the limited focus of this kind of psychology is the entire human self. Christians can well value behaviorist psychological theory while denouncing the misguided attempts to pervert such a psychological theory into an entire philosophical anthropology.

On the other hand, Wolterstorff refers at length to examples of how changes in various theories have correctly, he thinks, led to changes in Christians' control beliefs.¹⁴ In these cases, of course, the so-called control beliefs are no longer in control! I do not want to take exception to any of his examples. Surely our general understanding of Christian faith can always be subject to improvement from any source of God's truth, including some natural scientific theories. What bothers me here is the continued use of the misleading term "control beliefs." A better term would be "basic beliefs," or better yet, "preunderstandings." We should reserve the term "control beliefs" for beliefs to which we are so deeply committed that alterations of them would be extraordinarily rare. These secure

¹⁰This article is in *Faith and Rationality*, edited by Alvin Plantinga and Nicholas Wolterstorff (Notre Dame, Ind.: University of Notre Dame Press, 1983); see especially p. 172.

¹¹See *Reason*, pp. 64f., 73.

¹²See also C. Stephen Evans, "Must Psychoanalysis Embrace Determinism?" in *Psychoanalysis and Contemporary Thought* (New York: International Universities Press, 1989), pp. 339-365.

¹³Skinner, quoted in Wolterstorff's *Reason*, pp. 64f.

¹⁴See repeated examples in *Reason*, pp. 80-96.

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beliefs are generally basic to our worldviews. In contrast, when most of one's examples involve alteration of control beliefs rather than the use of control beliefs to discern scientific theories, as in Wolterstorff's work, then "control beliefs" are misnamed.

Third, by focusing merely on the discerning and devising of theories, Wolterstorff misses the major function of genuine Christian control beliefs in discerning and devising the foundations of the various disciplines, and of the natural sciences in particular. Historically, various "worldviewish" control beliefs have had dramatic effect on the selection of assumptions and methodologies appropriate to the various natural scientific disciplines.¹⁵ Here, as with theories, surface inconsistencies with other deeply held beliefs need not lead to an alteration of either disciplinary assumptions or the other beliefs. Differences of language-games must be recognized. Nevertheless, the basic assumptions and methodologies of the disciplines are more subject to "worldviewish" evaluations than are particular theories within disciplines. The basic disciplinary assumptions and methodologies lie at the borders of the different disciplines; it is on the basis of these assumptions and methodologies that disciplines are divided and can be compared. It is at the line of these disciplinary assumptions and methodologies that the major issues are raised in the philosophy of science, including Christian philosophy of science.

When a theory actually contradicts our genuine control beliefs, beliefs to which we are very deeply committed, we have four options. First, we can seriously challenge the assumptions or methodologies of the alleged "science"—as with astrology—and argue that it is only a pseudoscience. Second, we can seek to alter some of the basic assumptions and methodologies of the discipline that engendered or permitted the objectionable theory. This is a process that has often led to new scientific discoveries and changes in theories— from Copernicus to the present. In fact, significant theory change has occurred only when scholars have successfully challenged implicit or explicit disciplinary assumptions or methodologies. Third, we can come to understand the theory's restricted disciplinary focus—as with behaviorist psychology—and thoughtfully argue against any "worldviewish" uses of it. Fourth, perhaps our own control beliefs may need reevaluation, though we would be wise to consider this only very carefully and over a period of time. Often what seems at first to be a contradiction can be shown to be noncontradictory or can be resolved in another way. In brief, we either uncover the discipline as a kind of pseudoscience, attempt to alter the disciplinary assumptions or methods, seek to restrain the theory to its legitimate disciplinary context, or we ourselves might change. In each of these responses, disciplinary assumptions and methods play an important role. With this in mind, I wish now to defend, on the basis of Christian theological and philosophical commitments, the methodological naturalism of the natural scientific disciplines.

¹⁵See controversial discussions of this in Jaki, *The Road to Science and the Ways to God* (Chicago: University of Chicago Press, 1978), and Hooçkaas, *Religion and the Rise of Modern Science* (Grand Rapids: Eerdmans, 1972).

Christian support for methodological naturalism

How should Christians approach methodological naturalism? We should be enthusiastic supporters of the naturalistic methodology of the natural sciences for the following six reasons.

First, Christianity teaches that regularity and coherence are discoverable within natural phenomena. Naturalistic methodology in the natural sciences can, therefore, be embraced on the assumption of God's coherent ordering of the world. God's existence need not be brought up within the natural sciences because the belief in his existence is already part of the historic foundations of the modern natural sciences. Because of the power and dependability of the Creator-God, we can expect to discover regular patterns of causation and interaction within the created, natural order. These patterns are often more impressive when they are studied in isolation (with the help of methodological naturalism) as natural scientists persistently pursue analyses of every factual interrelationship. In natural scientific work there is no need to be sidetracked by theological or philosophical speculation or analysis. Nevertheless, when the natural scientific analysis is done within the limits of methodological naturalism, we can then praise the Creator from a position of greater knowledge and deeper appreciation.

Second, methodological naturalism is correctly understood as a useful approach to natural scientific work without prejudging its usefulness in other areas of life. With a balanced understanding of both the values and limits of natural science, one can appreciate the genuine validity of non-naturalistic explanations of events outside of the foci of the natural sciences.

For example, a farmer may explain a rainstorm as an answer to prayer without questioning a meteorological explanation—he may see God at work in the complex causal interrelationships that affect our weather. He can praise God for answers to prayer and also praise God for the awesome regularity that he sees within nature. Similarly, a medical doctor may, with scientific accuracy, prescribe the correct medicine and still praise God for the healing that takes place. God's handiwork can be seen in our bodily processes without our imposing a God-hypothesis into our understanding of physiology.

Basically for the very reason that natural science is methodologically limited to naturalistic explanations, everyone should thoughtfully consider other explanations which are outside the limits of the scientific focus—prayer, purposes, creation *ex nihilo*, personal will. In fact, the very articulated nature of the world discoverable under the constraints of methodological naturalism justifies great praise to God. But the method that is so successful for natural science would be a disaster in other disciplines. Could we discuss morals without purpose or theology without God?

Third, because the natural scientific disciplines are guided by methodological naturalism, they cannot pretend to provide answers to the ultimate questions. At some point in every explanation of phenomena, the question "Why?" can no longer be answered within science—except to say that we have gone as far as our methods of natural science have taken us at this time. Whether

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this is the entire valid explanation or whether more ultimate steps of explanation are appropriate (e.g., "God made it that way" or "This is the way God does it") is a question that must be decided outside the natural sciences. Without the discipline of methodological naturalism, some might stop their scientific research too quickly and merely rest in the comfort of the ultimate explanations. Nevertheless, methodological naturalism in the natural sciences and the ultimate explanations available to Christians are quite compatible. Unfortunately, various ultimate explanations are often promoted under the guise of scientific results. Since we have no compelling reason to believe that all truth is scientific, and since the natural sciences are limited by their methodological naturalism, we *must* rely also on resources outside the natural sciences when resolving ultimate questions such as those involving worldviews and the basic meanings and values for our lives.

For example, an understanding of the roles of genetic mutation and natural selection throughout the existence of the human race is a matter for natural scientific inquiry, but the question of the actual origin of the human race is an ultimate question. It is a question beyond the scope of the natural sciences with their naturalistic methodology, because it concerns the basic meaning and purpose of our existence. This is a "worldviewish" question, not a question for a natural science. Studying such an ultimate question simply under the guidelines of methodological naturalism would harmfully prejudice our conclusions toward metaphysical naturalism. We need to sharpen our understanding of the distinguishing characteristics of ultimate questions and consistently avoid applying only prejudicial methods (such as methodological naturalism) in studying them.

Fourth, Christians should be comfortable with methodological naturalism in the natural sciences because God Himself is sovereign over all of life. God's power over all aspects of our lives does not depend on our forcing God-talk into every discipline or circumstance, nor does it depend on the superiority of theology over other disciplines. As Abraham Kuyper pointed out, because God is sovereign over all of life, He is sovereign over every part of life as well. The internal structure of the scientific enterprise is part of the Kingdom of God. Thus, any manipulation of a natural science to suit the purposes of theologians, churches, or governments is an expression of a lack of faith. Within the sovereign sphere of science, we are free to study the works of God without having to make explicit reference to the Person of God or even to His existence.¹⁶ God's works are manifest and open to study even by those who do not know Him.

Fifth, the Incarnation should liberate Christians from any fear of methodological naturalism in the natural sciences, for when the Word became flesh, He did not overpower the human condition, but respected its constraints. He came into the world as it was. He was a fetus for nine months in a woman's womb. He grew up in the natural surroundings of Nazareth. He suffered with us and died. He was not biologically different from you and me. Certainly His

¹⁶See especially Kuyper's *Lectures on Calvinism* (Grand Rapids: Eerdmans, 1931), Lecture IV.

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purpose was unique and in His resurrection He conquered death, but He was a man for man and a man for God. Consequently, it should not be beneath our dignity to incarnate our natural scientific thoughts into the capillaries, valences, and gluons of methodological naturalism.

Finally, a Christian doing scientific work should be completely at home with methodological naturalism in that work, because life is much more than the natural scientific disciplines. Natural scientific theories are necessarily incomplete because the world is more than matter and energy. While working in the laboratory or analyzing data at a scientific desk, we might well see the world in terms of just matter and energy. After all, this is the proper focus of the natural sciences. The *tragicomedy* begins when a natural scientist forgets his humanity and claims that his matter-and-energy picture of the world is literally complete. This may be the saddest of the "absent-minded professor" jokes. It seems frighteningly easy for natural scientists to become so absent-minded that they forget that the theories they invent apply to themselves. Where in the energy-and-matter picture of the world are the scientist's love for his wife, his dreams for his children, his hopes for other scientists' praise, his commitment to scientific truth? Must the scientist fail to see the forest for the trees; must he fail to see the person for the bones and flesh? Surely he looks in the mirror when he shaves! Where in his theories is his personal irritation with his lab assistant or his appreciation of the beauty and grace of the co-ed that draws his attention outside his window! Could he have lost his ability to notice? How sad.

By letting our science be freely guided by methodological naturalism, we will be more free to point out the legitimate limitations of the natural sciences. Many truths lie outside the scope of the natural sciences—truths concerning human nature and human needs, truths concerning wholesome values and the meaning of life, truths concerning where we came from and where we are going. Think about it: a biology book provides small help for selecting a mate, much as an auto mechanic's manual is no source for vacation ideas. (We could end up divorced and still be in the driveway!) If we are free to let the natural sciences be limited to their perspectives under the guidance of methodological naturalism, then other sources of truth will be more defensible. However, to insist that God-talk be included in the natural sciences is to submit unwisely to the modern myth of scientism: the myth that all truth is scientific.

The methodological naturalism of natural science need not be offensive to Christians. (1) We certainly expect to find structure within the created order. Nevertheless, (2) the value of this limited naturalistic focus is unique to science; (3) questions outside of this focus must be approached through alternative methodologies. Also, (4) the fact that God is not mentioned in the natural sciences does not exclude the effect of His Presence. On the contrary, (5) His Incarnation affirms His capacity to be at home in the natural order. Finally, (6) we should not force theological talk into science because the natural sciences are necessarily incomplete. Our lives are much more than the natural scientific disciplines, but the natural sciences must live within the constraints of their naturalistic methodologies. And what, for that matter, could be more natural?