

Secular Philosophy and the Religious Temperament

1.

Analytic philosophy as a historical movement has not done much to provide an alternative to the consolations of religion. This is sometimes made a cause for reproach, and it has led to unfavorable comparisons with the continental tradition of the twentieth century, which did not shirk that task. I believe this is one of the reasons why continental philosophy has been better received by the general public: it is at least trying to provide nourishment for the soul, the job by which philosophy is supposed to earn its keep.

Analytic philosophers usually rebuff the complaint by pointing out that their concerns are continuous with the central occupations of Western philosophy from Parmenides onward: metaphysics, epistemology, logic, and ethical theory. Those topics have been pursued in a great tradition of works that are often technical and difficult, and that are not intended for a broad audience. The aim of that tradition is understanding, not edification.

This reply is formally correct, but it fails to acknowledge the significant element of yearning for cosmic reconciliation that has been part of the philosophical impulse from the beginning. Its greatest example is Plato, who had what I would call a profoundly religious temperament -- displayed not in what he said about religion, but in his philosophy.

I am using the term "religious temperament" in a way that I have not invented (though I do not know its source), but that may seem illegitimate to those who are really religious. But I think it is the appropriate name for a disposition to seek a view of the

world that can play a certain role in the inner life – a role that for some people is occupied by religion.

Whether anything like this was part of the religion of fourth century Athens I do not know. But Plato was clearly concerned not only with the state of his soul, but also with his relation to the universe at the deepest level. Plato's metaphysics was not intended to produce merely a detached understanding of reality. His motivation in philosophy was in part to achieve a kind of understanding that would connect him (and therefore every human being) to the whole of reality – intelligibly and if possible satisfyingly. He even seems to have suffered from a version of the more characteristically Judaeo-Christian conviction that we are all miserable sinners, and to have hoped for some form of redemption from philosophy.

The desire for such completion, whether or not one thinks it can be met, is a manifestation of what I am calling the religious temperament. One way in which that desire can be satisfied is through religious belief. Religion plays many roles in human life, but this is one of them. I want to discuss what remains of the desire, or the question, if one believes that a religious response is not available, and whether philosophy can respond to it in another way.

I recognize that this is a conspicuously negative and roundabout way of identifying the subject: What, if anything, does secular philosophy have to put in the place of religion? One answer would be that nothing secular can be put in its place, either because there is something unreal about the question to which religion purports to provide the answer, or because it can be answered only in religious terms. But I do not think this is right. A space remains open if we deny that religion can make sense of

everything. And one of the legitimate functions of philosophy is either to try to occupy that place, or else to offer a way of assimilating the fact that nothing can occupy it. The subject overlaps with that of the meaning of life, but it is not the same. It is a question of making sense not merely of our lives, but of everything.

2.

To better identify the question, we should start with the religious response. There are many religions, and they are very different, but what I have in mind is common to the great monotheisms, perhaps to some polytheistic religions, and even to pantheistic religions which don't have a god in the usual sense. It is the idea that there is some kind of all-encompassing mind or spiritual principle in addition to the minds of individual human beings and other creatures – and that this mind or spirit is the foundation of the existence of the universe, of the natural order, of value, and of our existence, nature, and purpose. The aspect of religious belief I am talking about is belief in such a conception of the universe, and the incorporation of that belief into one's conception of oneself and one's life.

The important thing for the present discussion is that if you have such a belief, you cannot think of yourself as leading a merely human life. Instead, it becomes a life in the sight of God, or an element in the life of the world soul. You must try to bring this conception of the universe and your relation to it into your life, as part of the point of view from which it is led. This is part of the answer to the question of who you are and what you are doing here. It may include a belief in the love of God for his creatures, belief in an afterlife, and other ideas about the connection of earthly existence with the totality of nature or the span of eternity. The details will differ, but in general a divine or

universal mind supplies an answer to the question of how a human individual can live in harmony with the universe.

Perhaps religious persons will regard this as a simple-minded caricature, but it is the impression that a nonbeliever gets from the outside, of what it would be like to have a religious world view. In any case, I describe this impression in order to locate my topic, which is a question to which religion provides one type of answer. I want to know what becomes of the question if one does not give it a religious answer.

The question I have in mind is not, of course, "Is there a god?" Rather it is a general question about the relation of individual human life to the universe as a whole. The question is pointed to by its religious answer: namely that our lives are in some way expressions or parts of the spiritual sense of the universe as a whole, and that we must try to live them in light of this, and not only from the point of view of our local purely individual nature. I believe that the question to which this is one possible response remains to be asked even if a religious response is not available, and it is this: How can one bring into one's individual life a recognition of one's relation to the universe as a whole, whatever that relation is?

It is important to distinguish this question from the pure desire for understanding of the universe and one's place in it. It is not an expression of curiosity, however large. And it is not the general intellectual problem of how to combine an objective conception of the universe with the local perspective of one creature within it. It is rather a question of attitude: Is there a way to live in harmony with the universe, and not just in it?

Without God, it is unclear what we should aspire to harmony with. But still, the aspiration can remain, to live not merely the life of the creature one is, but in some sense

to participate through it in the life of the universe as a whole. To be gripped by this desire is what I mean by the religious temperament. Having, amazingly, burst into existence, one is a representative of existence itself – of the whole of it – not just because one is part of it but because it is present to one’s consciousness. In each of us, the universe has come to consciousness, and therefore our existence is not merely our own.

To live not merely one’s own life is also a demand of those forms of morality that take up a universal standpoint as part of their foundation. And something of the kind will very likely form part of a secular response to the religious question. But it is only a part, dealing specifically with recognition of the existence of other people. There is more to the question than this. The extra-human world that contains and generates all these people also has a claim on us – a claim to be made part of our life. Existence is something tremendous, and day-to-day life, however indispensable, seems an insufficient response to it, a failure of consciousness. Outrageous as it sounds, the religious temperament regards a merely human life as insufficient, as a partial blindness to or rejection of the terms of our existence. It asks for something more encompassing, without knowing what that might be.

My subject is the secular philosophical responses to this impulse. I will (somewhat arbitrarily) call the question to which it seeks an answer the cosmic question. It is a question to which a religion could provide an answer, if one accepted it, but my discussion will concentrate on nonreligious responses. The question, again, is this: How can one bring into one’s individual life a full recognition of one’s relation to the universe as a whole? It is this quite general question, rather than the more specific search for redemption, that I will focus on.

The responses fall into three categories: (a) those that reject the question; (b) those that construct an answer from the inside out – i.e. starting from the human point of view; (c) those that construct an answer from the outside in – i.e. starting from a cosmic point of view.

3.

Let me begin by discussing the dismissive response that probably fits most comfortably with the analytic tradition. My impression is that most analytic philosophers are devoid of the religious temperament, and that they cannot take seriously the thought that something is missing if it is impossible to make sense of things in that way.¹ Sense, in this outlook, is something to be found within individual human lives, human creativity, human interactions, and human institutions. To take the quest for sense outside the boundaries of those human purposes and aims relative to which all judgments of sense or senselessness must be made is an error, and an error of a philosophically familiar type: trying to extend a concept beyond the conditions that give it meaning.

Among great philosophers of the past, I would particularly associate this outlook with Hume, who seems to me a beautiful example of someone perfectly free of religious impulses. His serene naturalism is a deep expression of his temperament, and he obviously feels no yearning for harmony with the cosmos.

This is certainly a possible secular stance: take life as you find it, and try to play the hand you have been dealt by the contingencies of biology, culture, and history. It is possible to go far beyond these boundaries in the pursuit of pure understanding, but all

¹ The religious temperament is not common among analytic philosophers, but it is not absent. A number of prominent analytic philosophers are protestant, catholic, or jewish, and others, such as Wittgenstein and Rawls, clearly had a religious attitude to life without adhering to a particular religion. But I believe nothing of the kind is present in the makeup of Russell, Moore, Ryle, Austin, Carnap, Quine, Davidson, Strawson, or most of the current professoriate.

such understanding will be essentially scientific. It isn't that there is a great absence of sense to the universe as a whole. It is just that there is no way for sense to be either present or absent at that level. And the sense that religious belief confers on everything is entirely gratuitous – an unnecessary add-on whose removal leaves no gap to be filled. If there were a god who was responsible for the existence of the universe and our place in it, the sense of everything would depend on him, but if there is no god, there is nothing by reference to which the universe can either have or lack sense.

Someone who takes this point of view can regard it as a legitimate philosophical task to try to make sense of human life from within – to have something systematic to say about the ends of life, the good life – the meaning of life in one sense of that expression. But it will not seem intelligible to try to make sense of human existence altogether, for example.

This important outlook, probably dominant among atheists, places physical science at the top of the hierarchy of understanding for the universe as a whole. There are other kinds of understanding that are appropriate for local concerns at smaller and more intimate scales. But the universe revealed by chemistry and physics, however beautiful and awe-inspiring, is meaningless, in the radical sense that it is incapable of meaning. That is, natural science as most commonly understood presents the world and our existence as something to which the religious impulse has no application. All we can do, and this is a great deal, is to extend our knowledge of what the universe contains and of the laws that govern it.

This was not the outlook of religious scientists in the past, who saw themselves as revealing the wonders of God's creation. And some modern scientists, like Einstein,

have taken a quasi-religious attitude toward the natural order and its intelligibility. But the most common secular attitude, I think, is that once we leave the human scale and move to the largest and most general theories, and ultimately perhaps to a theory of everything, we are in a realm of pure description.

One major intellectual task is to describe how the universe generated creatures that find themselves with the need to make some kind of sense of their lives. But this description itself does not have to make sense in the same way. It can be a purely factual account of how sense-seeking creatures – creatures like us, whose lives are capable of significant senselessness – emerged at a certain level of complexity of organization.

The point of the resolutely secular view is that there is nothing missing from this picture. When we look beyond the human world at the universe that contains it and has somehow given rise to it, we are not looking into the abyss. There is no need to carry on about the loneliness of man in the face of the vast impersonality of the universe, no need for the courage to forge a new destiny for ourselves after the death of God. That's just pretentious hand-wringing.

I have set out this view because it is the default or zero position to which I want to explore alternatives; we might call it affectless atheism, or hard-headed atheism. The universe exists and meets a certain description; one of the things it has generated is us; end of story. Of course a new story begins with our existence, since we find our own lives extraordinarily interesting. But this is a local phenomenon of perfectly understandable self-absorption, unconnected to the big picture. The big picture is of purely theoretical interest.

It is a seductive position, and I do not doubt that many people find it comfortable, as well as intellectually irresistible. To me it has always seemed an evasion. It requires that we leave the largest question unanswered – in fact that we leave it unasked, because there is no such question. But there is: it is the question, “What am I doing here?” and it doesn’t go away when science replaces a religious world view.

The question results from one of those stepplings back that constitute the essence of philosophy. We find the familiar unfamiliar by reflecting on features of our situation, or forms of thought and action, so central and pervasive that we are ordinarily submerged in them without paying any notice. Philosophy in general is the most systematic form of self-consciousness. It consists in bringing to consciousness for analysis and evaluation everything that in ordinary life is invisible because it underlies and pervades what we are consciously doing. Language, thought, consciousness itself become the explicit objects of philosophical attention instead of just serving as the medium for our lives.

In this case the first thing that is brought to notice is that we are parts of the world. We wake up from our familiar surroundings to find ourselves, already elaborately formed by biology and culture, amazingly in existence, in the midst of the contingency of the world, and suddenly we do not know where we are or what we are. We recognize that we are products of the world and its history, generated and sustained in existence in ways we hardly understand, so that in a sense every individual life represents far more than itself. It is a short step, easily taken on a starry night, to thinking that one is a small representative of the whole of existence. That creates in susceptible minds the need to grasp that life and if possible to lead it as part of something larger – perhaps even as part of the life of the universe.

So we wrench ourselves out of the familiarity of our surroundings and ask whether an understanding of the totality of which we are a part can become part of the self-understanding by which we live. Whether the answer is yes or no, and whether or not one takes any interest in it, the question, I believe, is real. So although we should keep in mind the default position of hard-headed atheism, according to which the scientific world view abolishes not only cosmic meaning but its absence, I want now to turn to less dismissive secular responses to the question.

5.

The minimalist response is that the universe has nothing to offer that we can use, and that we are thrown back on our own resources. This differs from hard-headed atheism because it doesn't reject the question, but tells us that we have to come to terms with our inability to answer it. We can't make sense of our lives from the point of view of our place in the universe, and shouldn't expect this to change even if we learn much more about the natural order. And that leaves a gap – the failure of a natural aspiration.

At this point we may respond with either existentialist despair or existentialist defiance. The latter is particularly well expressed by Camus in The Myth of Sisyphus. It consists in making a virtue of the will to go on in spite of the complete indifference of the cosmos -- without the kind of sense that religion could give to our lives. Not to be defeated by pointlessness is what gives our lives their point. That is as far as we can go toward living in light of our understanding of everything.

But there is another type of response that tries at least partially to fill the gap left by the death of god, working from the inside out. This is humanism, the view that we ourselves, as a species or community, give sense to the world as a whole. Human beings

collectively can fill the place of the world soul. The significance of an individual life does depend on its embeddedness in something larger, but it is the history of humanity rather than the cosmos. It is our self-consciousness and our accumulation and transmission of culture and knowledge that makes membership in the human community a significant larger identity. The universe does not offer any sense to our lives, but we are not alone in it.

This response to the cosmic question does not show us how to live lives that are more than human, but it does argue that living a human life should be something much more than living the life of the individual human being one is. One should think of oneself as a representative of humanity, and live accordingly.

A more abstract analogue of this universal self-conception is the foundation of Kant's moral theory, although Kant proposed that we should regard ourselves as representing the realm of all rational beings, not of anything so contingent and historical as the human species. A more humanist version of the Kantian conception is found in Rawls – see his evocation of the view *sub specie aeternitatis* at the end of *A Theory of Justice*.² Sidgwick's account of the basis of utilitarianism, as an incorporation into our lives of the point of view of the universe, can be regarded as another example of cosmic sense constructed from inside out – since what the point of view of the universe endorses is an impartial concern for the happiness of all sentient creatures. Their individual lives remain the ultimate sources of value.

² “The perspective of eternity is not a perspective from a certain place beyond the world, nor the point of view of a transcendent being; rather it is a certain form of thought and feeling that rational persons can adopt within the world. And having done so, they can, whatever their generation, bring together into one scheme all individual perspectives and arrive together at regulative principles that can be affirmed by everyone as he lives by them, each from his own standpoint. Purity of heart, if one could attain it, would be to see clearly and to act with grace and self-command from this point of view.” (Harvard University Press, 1971) p.587.

The thoughts that we should transcend the life of a particular person by taking on the value of humanity, or the value of all rational beings as ends in themselves, or the value of all sentient life, are all partial answers to the cosmic question. They go part way toward incorporating a cosmic point of view into the life of the individual, and they certainly embed that life in something larger. But they depend on the unquestioned value of human (and other) life itself, which does not receive endorsement from some higher value. The point of humanism and other “inside-out” answers is that no such endorsement or external support is needed. It is we who give sense to the universe, so there is no need for a higher principle to give sense to us.

Another example is Sartre’s existentialism: “There is no universe other than a human universe, the universe of human subjectivity,”³ he says, summing up his argument that existentialism is a form of humanism. He interprets it through a somewhat unstable doctrine of radical freedom constrained by universal prescriptivism: Since God does not exist, everything is permitted, but in choosing what to be I must think of myself as choosing for everyone. This shares with other humanisms the principle that we are the source of all value, and that it replaces the value not given to our lives by the nonexistent creator.

William James says, “Were one asked to characterize the life of religion in the broadest and most general terms possible, one might say that it consists of the belief that there is an unseen order, and that our supreme good lies in harmoniously adjusting ourselves thereto.”⁴ Humanism denies this, and finds our supreme good in harmony not

³ Jean-Paul Sartre, *L’existentialisme est un humanisme* (1946) (Paris: Gallimard, 1996) p. 76.

⁴ *The Varieties of Religious Experience* (New York: Longmans, Green and Co., 1902) (Dover reprint, 2002) p. 53.

with an unseen but with a visible order – one that is universal in a sense, but not unduly unfamiliar.

6.

Humanism and its relatives take us outside of ourselves in search of harmony with the universe, but not too far outside. They do not really give us a way of incorporating our conception of the universe as a whole into our lives and how we think of them. Their cosmic ambition is limited. In a way, it is more limited than the forms of existentialism that require us to live in the acknowledgment that our lives are senseless, and that there is no harmony possible for us. The next question is whether a more ambitious form of harmony, grounded in a larger view of our place in the universe, can be constructed on a secular basis. That is the project of “outside-in” responses to the question.

When we travel farther outside the human perspective than even the universal value of humanity, or of rational or sentient beings, we come to the natural order. The scientific conception of that order is uncompromisingly secular. The question we now have to ask is whether it provides a naturalistic view of our relation to the universe that can be taken on as an essential part of the standpoint from which we lead our lives.

Remember, we are talking here about possible secular answers to the cosmic question, not about ways of rejecting it. The development of a naturalistic account of the universe and our appearance in it can be a purely intellectual project, and hard-headed atheism says it has nothing to do with how we are to live – even though scientific knowledge about ourselves may be very useful in enabling us to live longer and better. But I am asking now whether it can do something more, namely provide us with a way of

seeing the point or sense of our lives from a perspective larger than the human one from which we naturally start.

The most likely candidate for such a perspective is that of biology, in particular the evolutionary biology of our epoch. More fundamental sciences like physics and chemistry, even though we fall under them, don't seem to offer a perspective from which life can be lived. But biology may, and the evolutionary perspective toward ourselves has seemed to some philosophers to offer the possibility of a transformative self-conception – one that is larger than even the universal human perspective.

Evolutionary theory is at the heart of contemporary philosophical naturalism about language, thought, perception, value, ethics, and action, but it often has nothing to do with the cosmic question or the religious temperament. Often, of course, it is associated with the rejection of religion, of its aspirations, and of anything resembling them.

But there is another strain of evolutionary naturalism that can be thought of as a replacement for religion. Its greatest representative is Nietzsche. What is distinctive about Nietzsche is that he turns a genealogical self-understanding, based on both biology and history, into a highly individual project of self-creation. He does not think that an understanding of his place in the natural order leads to moral universalism or anything similar. Instead, he thinks it should lead to freedom from the flattening influence of collective values and collective ideas.

Yet this is pursued in the name of a still larger framework, that of the great biological struggle that is responsible for one's existence and of which one's life is a

part.⁵ Our freedom and capacity for self-creation depends on our capacity to understand the evolutionary sources of the multiple and conflicting drives that constitute us – sources in both biological and social evolution. The revaluation of values that is Nietzsche’s project starts from the values that have been bred into us by our species and its cultural history. The meaning of those values can be understood only through their genealogy – by understanding the functions they performed which led to their survival.

Only on the basis of such genealogical self-understanding can we recreate ourselves – not with the absolute freedom of Sartre’s existentialism but by a reordering of our existing drives through a process of lifelong self-selection that is itself a form of evolution. “Valuing freely, as self selecting one’s values, is precisely to value in the light of an understanding of why one values. It is to ‘incorporate’ insight into the selective processes – Darwinian and cultural – that made the values of one’s body and spirit.”⁶

Once we understand how humans have come to be “the sick animal,” the animal in which the products of natural and social selection are in conflict, we can in full consciousness recreate ourselves to transcend this conflict. (There is a distinct resemblance here to Freud’s diagnosis of the human condition in Civilization and its Discontents, but Freud is much more pessimistic than Nietzsche about the possible extent of our recaptured freedom.)

This is very brief, and as Richardson observes, Nietzsche is so multifaceted that one can at best say that the Darwinian theme is one aspect of his views. In fact he often has harsh things to say about Darwin and his followers. But exegetical questions aside, this way of understanding and living one’s life does seem an important form of

⁵ For this reading of Nietzsche I am indebted to John Richardson’s perceptive study, Nietzsche’s New Darwinism (New York: Oxford University Press, 2004).

⁶ Richardson, p. 107

naturalistic response to the cosmic question: How can one live in light of an understanding of the universe and one's place in it?

Instead of starting from one's existing values, one steps back and tries first to understand them in virtue of one's place in a much larger natural and historical order, and then to recast one's life from this new, expanded starting point. Nietzsche's ethical and political conclusions are famously radical, but I won't consider them here. It is the general strategy of importing not just historical genealogy but evolutionary biology into the perspective from which one lives that is significant. Nietzsche offers this as a source of enlarged meaning, which replaces the illusory meaning of religion and conventional morality. It is therefore a response to the cosmic question that is distinct from religion, from humanism, and from existentialism. But can naturalism play this role?

We have to distinguish between a purely instrumental use of an evolutionary self-conception and a sense-giving use. Instrumental use might be illustrated by possible reflections on the sex drive and sexual puritanism. If we recognize that the power of the sex drive is explained by its reproductive function, we will conclude that it should be regarded as a biological given, and that its satisfaction will remain important to us even if it doesn't serve that function. If we also recognize that sexual chastity is not a biological given but has had the societal function of preventing pregnancy without marriage, assuring married males of their paternity, and thus fostering familial cohesion, we can further conclude that with the availability of reliable contraception, puritanism has lost its usefulness and sexual freedom should be allowed to expand.

In this way of thinking, the evolutionary function or genealogy of drives or values we find ourselves with may be important, but it does not impose its sense on us. It

merely tells us how we got to where we are. What we do with that information depends on what we want now, not on the biological or social functions that formed us.

By contrast, a naturalism that extracts meaning from genealogy cannot so easily detach the value of heterosexual sex from reproduction. If the evolutionary history tells us what we are, then life as a competitor in the effort to leave more descendants than others takes on the aspect of life lived from a broader perspective. But how plausible is this? Even if it is taken only as a *prima facie* value, subject to reevaluation in light of other values through the complex process of self-selection, doesn't biological evolution lack authority to impose itself on the point of view from which we live?

This is the distinction between recognizing a fact about oneself and taking it on as part of one's intentional identity. How much of one's genealogical, biological, and evolutionary identity does it make sense to assume as one's point of view? A certain measure of such identification is an important antidote to excessive spiritualization. The idea that we humans are really immortal souls temporarily trapped in animal bodies is no longer very attractive, but it has been in the past, and resistance to it has been important in the thought both of Nietzsche and of Freud. Our animality and its history are important aspects of the self that has been built up over eons of genealogical descent. We should not try to escape living our animal life, nor regard it just as a necessary platform for keeping afloat the real life of the higher faculties.

Yet this is not really a response to the cosmic question. It is a somewhat expanded or enriched conception of our humanity, rather than an expansion of our perspective to include a relation to the universe. Nietzsche's position starts from a larger perspective, but he still offers a very individual response. If it is a response to the cosmic

question, it is one that depends specifically on Nietzsche's place in the history of humanity, which he believes gives him a unique understanding of the human genealogy and a unique capacity to make his own life the site for a reevaluation of all values that can usher in the next stage of human evolution.

But for most of us, the recognition that we are the products of biological and cultural evolution does not give us a task, a significant role in this larger process. The genealogical facts are interesting, and may lead to some significant self-conscious modifications of what we have been given, but for the most part we take what has resulted from the process as our starting point, and live from there forward. Each of us is only a small drop in the evolutionary and historical river. If the recognition of this is a response to the cosmic question, it is a relatively passive one.⁷

7.

Let me begin again with the question of whether evolutionary naturalism can provide a response to the cosmic question. In spite of the possibilities considered in the previous section, there is a general reason to think that the answer must be no. The reason is that, as it is usually understood, evolutionary naturalism is radically anti-teleological.⁸ This implies that it is not suited to supply any kind of sense to our existence, if it is taken on as the larger perspective from which life is lived. Instead, the evolutionary perspective probably makes human life, like all life, meaningless, since it makes life a more or less accidental consequence of physics.

⁷ The use of genealogy to vindicate, rather than undermine, a fundamental human value has recently been proposed by Bernard Williams in his book *Truth and Truthfulness: An Essay in Genealogy* (Princeton University Press, 2002). Williams believes that history, rather than pure philosophy, provides the enlarged perspective needed to transcend the unreflective individual perspective – though I should add that Williams, in spite of his admiration for Nietzsche, is quite devoid of the religious temperament. His humanism is not intended to fill a gap left by the death of God, and he is happy to dismiss the view *sub specie aeternitatis* as irrelevant to human concerns.

⁸ That is probably not true of Nietzsche's version, because of his underlying power-ontology.

If that is so, then any response to the cosmic question will have to come from within the perspective of human life rather than from the evolutionary perspective toward it. This leads us back either to some form of humanism, or to existentialist defiance, or more likely to hard-headed atheism – the view that there is no way of making the scientific understanding of our place in the universe part of the sense of our lives, and that it doesn't matter.

Darwin's theory of evolution on its own does not have this consequence, because Darwin recognized that it did not explain the origin of life – only the origin of species through natural selection once life and biological heredity were in existence. But the evolutionary naturalism of our day, while it offers no more of an account of the origin of life than Darwin did, is usually associated with an assumption that both the course of evolution and the origin of life have their basic explanation in the nonbiological sciences, even if the details of that explanation remain to be discovered.

The great reductive step taken with the discovery of DNA consolidated this outlook, by making it intelligible how heredity could be explained by chemistry. This didn't explain how RNA, DNA, or reproducing unicellular organisms came into existence in the first place, but for those who are not attracted to a religious explanation, it seems self-evident that there must be one in terms of chemistry and physics alone. The idea that the natural order should include, in addition to the laws of particle physics, fundamental further principles of organization and complexity leading to the development of life, is not seriously considered by mainstream scientists.⁹

⁹ A non-mainstream scientist, Stuart Kauffman, has made some moves in this direction. He conjectures that “the universe persistently diversifies and becomes more complex in such a way that the diversity of different possible next events keeps increasing as rapidly, on average, as possible.” The rapid development

The profoundly nonteleological character of this modern form of naturalism is concealed by the functional explanations that fill evolutionary accounts of the characteristics of living organisms. But any reference to the function or survival value of an organ or other feature is shorthand for a long story of purposeless mutations followed, because of environmental contingencies, by differential reproductive fitness -- survival of offspring or other relatives with the same genetic material. It is in the most straightforward sense false that we have eyes in order to see and a heart to pump the blood. Darwinian natural selection could be compatible with teleology if the existence of DNA had the purpose of permitting successive generations of organisms to adapt through natural selection to changes in the environment – but that of course is not the naturalistic conception.

That conception, far from offering us a sense of who we are, dissolves any sense of purpose or true nature that we may have begun with. The meaning of organic life vanishes in the meaninglessness of physics, of which it is one peculiar consequence. It is widely thought that, without knowing the details, we now have every reason to believe that life arose from a lifeless universe, in virtue of the basic laws of particle physics or string theory or something of the kind, that did not have life or us “in mind.” Hence the description of these ultimate laws as a theory of everything. Hence also the grateful remark of Richard Dawkins that Darwin made it possible for the first time to be an intellectually fulfilled atheist.¹⁰

of biological complexity is the most conspicuous example of this. See his Investigations (New York: Oxford University Press, 2000), p. 151.

¹⁰ Richard Dawkins, The Blind Watchmaker (New York: Norton, 1986) p. 6.

A genealogy of this kind gives us nothing to live by. As Daniel Dennett says, it is “universal acid: it eats through just about every traditional concept.”¹¹ To live we must fall back on our contingently formed desires, reserving the scientific world picture for intellectual and instrumental purposes. If naturalism means that everything reduces to physics, then there is no naturalistic answer to the cosmic question. So the next question is whether there is any secular alternative to this kind of reductive naturalism.

8.

As a way into that question it is worth looking closely at the opposition between evolutionary naturalism and creationism. The nature of the opposition has changed in our day. There are of course still religious creationists of the old sort, who believe God created the world only a few thousand years ago, and who deny that humans are the product of a long evolutionary history. But there are others who do not deny the great age of the universe and the long development of life on earth. It is possible to accept these facts, and even to believe in evolution by Darwinian natural selection, without giving up the argument from design. That argument only has to conclude that at some point, intelligence and intention were responsible for the appearance of structures with the complexity needed to permit the process of biological evolution to proceed.

This view is totally opposed to the naturalistic consensus, but it is not yet opposed to firmly established scientific knowledge, as young-Earth creationism is. What it contradicts are the currently unspecified and speculative naturalistic ideas about the origin of life, according to which it is a consequence of basic physics alone. The opposition between such a belief and natural science is profound -- much more profound than the belief in miracles, for example.

¹¹ Darwin's Dangerous Idea (New York: Simon and Schuster, 1995), p. 63.

If someone believes in the virgin birth or that Jesus walked on water, it does not imply any skepticism about the general principles of human reproduction or the physical properties of water. For a secular scientist to insist that there must be naturalistic explanations of these events would be absurd. If they occurred, they were miracles – individual divinely caused violations of the laws of nature – and the only appropriate secular belief is that they did not occur.

But belief in an intelligent designer behind the appearance of life is not belief in a miracle in this sense. It is not a belief that the laws of nature are as secular scientists believe they are, but that they were violated by the creator when he put together the first replicating molecule or the first cell. Rather, it is the belief that certain natural phenomena whose reality everyone accepts (unlike the virgin birth) cannot be explained in the way the naturalistic consensus assumes they must be explained, and that they require a different kind of explanation. This is a more systematic opposition to naturalistic reductionism than the belief in isolated miracles.

Although I seem to be constitutionally incapable of religious belief, I find the contemptuous attitude toward it on the part of prominent secular defenders of evolutionary naturalism intellectually unreasonable. Unless one rules out the idea of divine intervention a priori (and setting aside the problem of evil), some version of the argument from design seems to me a perfectly respectable reason for taking that alternative seriously – no less so now that Darwinian theory has been elaborated through the great discoveries of molecular biology.

I believe there is something wrong with the way the dispute has been conducted, for example in recent arguments over the teaching of evolution in public schools. It is

usually treated as if it were a dispute over whether the biological order proves the existence of a designer, and that is not the only way to see it. To be sure, the most famous use of the argument from design is as a proof of God's existence, starting from nonreligious premises about the natural world. Seen in this way, the question posed by the defenders of intelligent design is whether an atheist is forced by the empirical facts of nature to acknowledge that the appearance and evolution of life cannot be explained except by the agency of a purposeful designer.

No doubt some defenders of intelligent design make that claim, but while this is a legitimate question, it doesn't get at the main difference between the parties to this dispute, a difference that remains even if the atheist can rationally resist any nonmechanistic explanation. The real issue, I suggest, is not whether the biological facts do or do not rationally require belief in God, but rather how an antecedent belief or disbelief in the existence of God will reasonably affect one's interpretation of the biological facts.

Most people are believers or nonbelievers in the existence of God not as a result of argument, but in a much more basic way. They either see or experience God's presence in the world and in their lives or they don't. If God exists, then the capacity to see God's will expressed in the world is one of the forms of perception he has given us, the *sensus divinitatis*. If God does not exist, then it is a form of illusion. As Alvin Plantinga has argued – persuasively, in my view -- the justification for such religious belief is inseparable from its truth, just as is the case with sensory perception. We can't construct a justification by starting from purely subjective data and inferring that God provides the only possible explanation of those data, any more than we can prove the

existence of the physical world that way. But that doesn't show that either perceptual or religious beliefs are unwarranted. Whether they are depends on whether they are delivered by reliable human faculties.¹²

If one believes in God already, that belief will naturally form a part of the way one understands other things one knows about the world. If on the other hand one doesn't regard the existence of God as a serious possibility, it will not be included among the resources that could conceivably be used to make sense of anything else. To someone for whom the possibility of an interventionist god is simply ruled out in advance, any problems in working out a purely mechanistic account of the evolution of life are nothing but intellectual challenges to evolutionary theorists to develop the theory further. There is no available alternative to an explanation in terms of chemistry and physics. To a believing Christian, on the other hand, the question is naturally open. After all, if God is responsible for the character of the world, including our existence, this responsibility might have been exercised only by establishing the eternal laws of physics, or it might have been exercised more specifically, by ordaining further principles, processes, or events not determined by the laws of physics.

Both the Christian and the atheist can agree that the hypothesis of intervention in the physical order by a creator, perhaps through the creation of very special initial conditions, would render the observed biological facts at least as likely as the hypothesis of blind physical forces, working ultimately through the processes of mutation and natural selection. But to an atheist the former hypothesis has zero antecedent likelihood, so there is no contest. It can be safely ignored, like the hypothesis that an otherwise inexplicable misfortune that has happened to me can be explained by witchcraft. Most of

¹² Alvin Plantinga, Warranted Christian Belief (New York: Oxford University Press, 2000), chapter 6.

us would dismiss that hypothesis even if the misfortune followed the sincere attempt by one of my enemies, fresh from an overdose of Harry Potter, to cast an evil spell on me.

To a Christian, the possibility of divine intervention in the natural order is not ruled out in advance. Therefore the fact that such intervention would render certain observed facts probable is evidence in its favor, and it becomes one of the possible explanations of facts that might also be explained naturalistically, but that are by no means rendered more probable by the assumption of pure mechanism than they would be by purposive intervention. Perhaps on Christian assumptions it is a question left open by the available evidence, but it will certainly not be reasonable to think, as atheists naturally do, that there must be a purely mechanistic explanation of the origin and development of life.

To claim that that is the only reasonable conclusion for anyone to draw from the empirical data, the defender of evolutionary theory would have to claim that the belief in a god who can intervene in the world, like the belief in witchcraft, is itself irrational, and that it has been refuted by science. I am sure there are atheists who believe this, even if many of them would be reluctant to say so – for reasons of tact if not of political prudence. But I believe they are mistaken: Neither belief nor disbelief in God is irrational, and the consequence is that two diametrically opposed attitudes toward the natural order are both reasonable.

I don't think it is easy to figure out how to reflect this awkward fact in the design of public scientific education for a society that takes no stance on religious questions. Perhaps it is politically necessary to avoid addressing the question of what religious beliefs are and are not compatible with contemporary scientific knowledge. But if the

question were to be taken up, I believe young-Earth creationism and the denial of evolution would go on one side of the line and the existence of God and some forms of intelligent design would go on the other side.

9.

Some of the facts that modern creationists or advocates of intelligent design appeal to constitute real problems for a fully physics-based evolutionary theory. There are problems about the process of adaptation by natural selection itself. Much remains highly speculative about how enormously complex chemical and physiological systems could have developed gradually in small steps over many generations, each of them a viable form of life.

But we can leave these issues aside. Perhaps evolution is not gradual at all, and some mutations generate radically new systems in a single leap. Biologists seem in any case to have abandoned the earlier idea that purely random mutations without any constraints would suffice to provide enough viable organisms to permit natural selection to achieve adaptation to changing environmental conditions in the time available for the evolution that has occurred. Apparently mutations are themselves generated by the genetic material in some nonrandom way so that variation is “nonisotropic”, and this must itself be explained.¹³

Evolution itself is not the main problem. Even though creationists have a special interest in denying that natural selection is responsible for the appearance of human beings, it is what makes the process of natural selection possible at all, rather than how the process goes or what it explains, that poses the greatest difficulty for evolutionary

¹³ See for discussion of the issue Stephen Jay Gould, The Structure of Evolutionary Theory (Cambridge, MA: Harvard University Press, 2002) pp. 1025-37.

reductionism. The real problem is the existence of life, which cannot be explained by natural selection since it is a condition of natural selection. This is the hard question: If a teleological account is rejected, what will the reductive mechanistic alternative look like? It would seem to imply that the appearance of life is a gigantically improbable accident.

Among the totality of possible distributions of fundamental particles in the universe, the subset that includes self-replicating molecules of the kind necessary to give rise to living organisms is a very small fraction. From this it seems to follow that the likelihood, relative only to the laws of physics, of the appearance of such molecules is negligibly small. When I say “relative only to the laws of physics” I mean: independent of very special initial conditions. There may be – indeed I would suppose there are – some conditions of the distribution of particles in the early universe prior to the appearance of life such that, given only the laws of physics, the formation of such molecules would be highly likely given such conditions. But if such states too would constitute a negligibly small fraction of the totality of possible states of the early universe, then their having occurred seems no more capable of being explained by physics alone than does the appearance of life itself. It too would have to be pure chance. For someone who believes in God, of course, there is an alternative possibility that makes the outcome much more likely than pure chance.

I used to think that the solution to this problem must be that, contrary to initial appearances, the formation of replicating molecules capable of supporting the evolution by natural selection of increasingly complex life forms is physically likely after all, independent of initial conditions. DNA is as inevitable as snowflakes: it’s just a matter of discovering how physical principles lead to the generation of these sorts of structures.

There are research projects dedicated to discovering how this might be so.¹⁴ But a recent paper by Roger White¹⁵ has persuaded me that the search for an explanation of this kind is due to a confusion. If the appearance of life is explained by physics alone, it can only be explained as a monumentally unlikely fluke.

White's point is that what convinces people that the existence of life calls for an explanation is just that its probability given a designer is much greater than its probability as a chance outcome of the Big Bang. But this does not entail that its probability given a nonintentional, nonteleological bias in the fundamental laws of physics is greater than its probability as a chance outcome of the Big Bang. So while the existence of life may provide evidence of a designer, it doesn't provide evidence that the fundamental laws of physics make it probable.

The mistake is to think, "This can't be due to chance!" (because it would be very improbable as a chance result, and much more probable as an intentional result), but then to rule out the hypothesis that it is an intentional result (because there is no god), and yet hang on to the conviction that it can't be due to chance, and so conclude that it must be the product of a nonintentional bias in the laws of nature that makes it much more probable than chance. But the probability of a nonintentional, nonteleological bias in physics leading to the existence of life is no greater than the probability that life should emerge by chance. This should be clear if we imagine the same hypothesis about the appearance of a cloud formation that spells out, "Vote for Bush!"

¹⁴ For a discussion of recent proposals, see Simon Conway Morris, Life's Solution: Inevitable Humans in a Lonely Universe (Cambridge: Cambridge University Press, 2003), chapter 4, and Robert Shapiro, Origins: A Skeptic's Guide to the Creation of Life on Earth (Penguin, 1988).

¹⁵ "Does Life's Existence Call for an Explanation?" (unpublished manuscript, 2002)

I am persuaded by White's argument that if we are interested in an alternative to chance as the explanation of life, we should not look for it in fundamental physics. This leaves an obvious gap for religion to step into, and it will remain until a naturalistic theory fills it.

10.

This long digression on the religious opposition to evolutionary naturalism leads to the question whether there is a secular alternative to the reductionist picture. I share the prejudices of secular naturalists and do not find a religious account of our place in the universe credible. Yet I think the idea that life appeared by chance is unbelievable. Are there any other alternatives?

Well, there is the hypothesis that this universe is not unique, but that all possible universes exist, and we find ourselves, not surprisingly, in one that contains life. But that is a cop-out, which dispenses with the attempt to explain anything. And without the hypothesis of multiple universes, the observation that if life hadn't come into existence we wouldn't be here has no significance. One doesn't show that something doesn't require explanation by pointing out that it is not surprising. If I ask what explains the fact that the air pressure in the transcontinental jet is close to that at sea level, it is no answer to point out that if it weren't, I'd be dead.

If we admit that the existence of life has to be explained, then it seems to me that the hypothesis that there are natural principles of organization and development of complexity over time should be taken more seriously than it is, as an alternative to chance and creationism. The reason it is not taken seriously is that it would be a revival of the discredited idea of teleology as part of the natural order, not determined by the laws of

basic physics alone, yet compatible with them. But I think the existence of life is so puzzling that the standard for what is not worth considering should be applied sparingly.

The idea is very different from religious teleology. A creationist explanation of the existence of life is the biological analogue of dualism in the philosophy of mind. It pushes teleology outside of the natural order, into the intentions of the creator – working with completely purposeless materials whose properties are described by an entirely extensional physics. If God at some point in the past constructed DNA or one of its predecessors out of its elements, that dispenses with the need for any explanation of the capacity of matter to organize itself in this apparently purposive way.

Further, teleology is no more necessary to account for the mere physical possibility of DNA than it is to account for the physical possibility of an airplane or a telephone or a computer. Such possibilities are all explained by physics alone: it is only their actualization that involves a designer. Leaving aside the injection of the soul, God can be conceived by creationists as an efficient cause, operating on material elements which, once put together in the right way, will continue to obey the lifeless laws of physics.

So biological organization is no more part of the natural order in the creationist view than airplanes or telephones are. In this respect it resembles the view that the appearance of life is just a freak physical accident. Is it a sign of mental decay that I find both of these views less credible than some form of teleological naturalism?

There is another reason to be skeptical about the evolutionary reduction of biology to physics: it seems to me to have unacceptable implications for the philosophy of mind. If the development of the brains of conscious creatures is entirely explained by

physically driven natural selection, their consciousness would have to be either itself reducible to their physical organization and functioning, or else an epiphenomenal accident – a nonphysical and nonfunctional side-effect of physical evolution.

The first alternative is a form of psychophysical reductionism that many philosophers accept, but that I think is clearly false. The second alternative makes the appearance of consciousness a further mystery even relative to the physical appearance of life. If the mental is a necessary feature of certain physical systems but not itself reducible to the physical, an account of the origin and development of life should explain not only its physical history but also why those specific physical systems that bring consciousness with them have appeared in the course of the process. Unless consciousness can be analyzed in physical or functional terms, this cannot be made intelligible by physics alone.

So if one is an ontological antireductionist about the mental, and does not accept dualism and creationism, there seems no alternative to being skeptical about explanatory physicalist reductionism in biology as well. This conclusion will no doubt be welcome to physicalists, who can regard it as confirming their rejection of psychophysical antireductionism as a thoroughly antiscientific view.

Distrust of reductionism in biology is easier if one already has a general antipathy to reductive theories – not only to physicalist reductionism in the philosophy of mind, but to psychological reductionism in ethics and other normative domains, and to naturalistic reductionism about mathematics, modality, and meaning. Not only are such reductionist theories implausible taken one at a time, in virtue of their specific claims, but they make the world less, not more intelligible.

Still, the idea of natural principles of physical organization that are not mentally caused flies in the teeth of the authoritative form of explanation that has defined science since the revolution of the seventeenth century. It would mean that some natural laws are not, like all the basic scientific laws discovered so far, temporally local in their operation. The laws of physics are all equations specifying the instantaneous relations among mathematically specifiable quantities like force, mass, charge, and velocity. In a nonteleological system the explanation of any temporally extended process has to consist in the explanation in quantitative terms of each of its instantaneous stages by its immediate predecessor. Teleology, by contrast, would have to admit irreducible principles governing temporally extended development.

Natural teleology would require two things. First, that the nonteleological temporally local laws of physics – those governing the ultimate elements of the physical universe, whatever they are – are not fully deterministic. Given the physical state of the universe at any moment, the laws of physics would have to leave open a range of alternative successor states, presumably with a probability distribution over them.

Second, among those possible futures there will occasionally be some that are more eligible than others as possible steps on the way to the formation of complex replicating systems of the kind characteristic of life. The existence of teleology requires that successor states in this subset have a significantly higher probability than is entailed by the laws of physics alone – simply because those temporally extended processes of development have a higher probability than the alternatives.

This is a frankly teleological hypothesis because the preferred transitions do not have a higher probability in virtue of their intrinsic immediate physical characteristics,

but only in virtue of temporally extended developments of which they form a potential part. Certain temporally extended sequences are more probable than others, and it is in virtue of potentially belonging to such sequences that their earlier stages are more probable than the possible alternatives. In other words, some laws of nature would apply directly to temporally extended events, rather than specifying instantaneous functions.

Perhaps this is logically impossible, but at the moment I do not see why – though I certainly see why most people would regard it as too wild and retrograde a departure from the existing model of scientific explanation to be taken seriously. It couldn't be expressed in a few elegant equations.¹⁶ But it seems to me to be the only nonreligious hypothesis according to which the existence of life is not an unbelievably improbable fluke.

A naturalistic teleology would mean that organizational principles of this kind are an irreducible part of the natural order, and not the result of intentional or purposive influence by anyone. As I have said, it is an alternative both to intention-based teleology and to mechanistic reductionism. I am not confident that this idea of teleology without intention makes sense, but I do not at the moment see why it doesn't.

11.

The point of these speculations is to explain why atheism needn't entail reductionism. There may be the alternative of some kind of Platonism, according to which there is a nonaccidental fit between us and the world order: There is a natural order, and over time it generates beings that are not only part of it but are able to understand it. I have merely mentioned other aspects of the picture besides teleology. It

¹⁶ But equations are not out of the question. I am encouraged by an unpublished paper by John Hawthorne and Daniel Nolan called "What Would Teleological Causation Be?" which offers a precise account of teleological laws and a way of expressing them quantitatively and formally.

would have to include conceptions of mind, value, reason, necessity, and universals that also resist physicalist reduction. But instead of going into further detail, let me return to the cosmic question.

It isn't clear what one can do with a nonreductionist conception that does not postulate intention or purpose behind one's existence and relation to the universe. Still, it offers some sense of what one is, that can perhaps be internalized in a way that the reductionist, cosmic accident picture cannot. Each of us, on this view, is a part of the lengthy process of the universe gradually waking up. It was originally a biological evolutionary process, and in our species it has become a collective cultural process as well. It will continue, and, seen from a larger perspective, one's own life is a small piece of this very extended expansion of organization and consciousness.

Human life, too, though it is the most advanced version we know of, is only a part of the process. So the identification it encourages is not a form of humanism. In some respects this is a return to the Nietzschean conception of mere humanity as a stage that we may be in a position to transcend. At the same time it would share the Nietzschean identification with the prehuman sources that remain embedded in our present nature. We are bound up in many ways with life in general, and are ourselves animals, as both Nietzsche and Freud emphasized.

But does it really make any difference whether we are the products of natural teleology or of pure chance? Without an intentional designer, perhaps there is no sense to be made of our lives from the larger perspective in either case: we just have to start from what we contingently are, and make what sense we can of our lives from there.

If the question is about whether our lives have a cosmic purpose, I would agree. But that is not the only possibility. The Platonic sense of the world is that its intelligibility and the development of beings to whom it is intelligible are nonaccidental; so our awareness and its expansion as part of the history of life and of our species are part of the natural evolution of the cosmos. Without a religious interpretation, this view does not face the problem of evil, or the problem of whether the whole process is aiming at any result. But it does expand our sense of what a human life is. It seems at least somewhat less plausible to say that all sense begins with the contingent desires and choices of the particular individual – that existence precedes essence, in the existentialist formula.

Of course anyone, however reductionist, must acknowledge that a great deal about us is given prior to choice. But in the Platonic conception even the biological and cultural evolution that has led to the starting point at which each of us arrives on Earth and reaches consciousness is embedded in something larger, something that makes that entire history less arbitrary than it is on the reductive view.

We have come on the scene after the appearance of reason, and reason allows us to move beyond the world of mere experience by forming conceptions of possible general accounts of reality whose observable properties can be rationally deduced, enabling them to be empirically confirmed or disconfirmed. Reason also plays a role in the search for general principles of normative justification, permitting collective as well as individual decision. The Platonic picture, without being religious, makes this way of proceeding intelligible. It is essentially the Cartesian picture without God. The reductionist picture, by contrast, leaves the existence and authority of human reason a mystery, though it

cannot undermine its authority, since there is no other way to think. So-called naturalized epistemology assumes this authority rather than establishing it.

But if the Platonic alternative is rejected along with the religious one, we must go back to the choice between hard-headed atheism, humanism, and the absurd. In that case, since the cosmic question won't go away and humanism is too feeble an answer, the absurd has my vote.