## The Place of Chance in a World Sustained by God

In this essay, I want to examine a number of interrelated issues in what might be called the metaphysics of divine action: creation, sustenance, law, miracle, providence, and chance. Thus my title is rather narrow for the topics considered. But it is the topic *chance* that I shall be working toward. My discussion of these other topics is a prolegomenon to my discussion of chance. (My discussion of chance is, in its turn, a prolegomenon to a discussion of the problem of evil; but that is a topic for another time. In the present essay I shall lay out some implications of what I say about chance for the problem of evil, but I shall not directly discuss this problem, much less suggest a solution to it.)

I will begin with a discussion of God's relation to a certain object that might variously be called "the world," "the universe," "Creation," "the cosmos," or "nature." It is necessary for us to have a picture of this thing. I will provide a picture that is scientifically naive and philosophically tendentious: the world consists of a certain number of small, indivisible units of matter I shall call "elementary particles"; there is only one type of particle, and there are always just the same particles, and they are in constant motion in otherwise empty infinite three-dimensional space ("the void").

This picture could be called a Newtonian picture, although I don't insist on the absolute space or the "absolute, true, and mathematical time" of Newton. It is, as I have said, from a scientific point of view,

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a naive picture. But if it were replaced with the sort of physical world picture provided by quantum field theories like quantum electrodynamics and quantum chromodynamics, I do not think that this replacement would affect in any essential way the philosophical points I want to make. I therefore retain the naive picture—not that I am equipped to carry on the discussion in the terms provided by any other picture.

The picture is philosophically tendentious. It presupposes that the created world is entirely material. But that could easily enough be changed. Anyone who wants to suppose that the created world contains, for example, Cartesian egos, may simply reject my assumption that the elementary particles are all indivisible units of matter, and assume that some of them are nonspatial and are capable of thought. (A similar device could accommodate angels conceived as St. Thomas Aquinas conceives angels.) The generalizations I shall make about "elementary particles" in the sequel do not in any essential way presuppose that elementary particles are spatial, nonthinking things. And the generalizations I shall make about created persons do not in any essential way presuppose that no created person is a Cartesian ego.

Having given this naive and tendentious picture of the world or nature, I relate it—in a burst of simplistic picture-thinking—to God in the following way.

God created the world by bringing certain elementary particles into existence at some particular moment—six thousand years ago or twenty billion years ago or some such figure. These particles were at the moment of their creation suspended in the void—which is sheer emptiness, and not a physical object like the modern space-time or the modern quantum vacuum—and possessed of certain initial velocities. Each, moreover, possessed certain causal powers; that is, each possessed a certain intrinsic capacity to affect the motions of other particles.

Now these particles were (and are) not capable of maintaining themselves in existence or of conserving their own causal powers. For one of them to continue to exist, it is necessary for God continuously to hold it in existence. For it to have the same set of causal powers—the same set of capacities to affect the motions of other particles—at a series of instants, it is necessary for God at each instant to supply it with that set of causal powers. For that matter, for a particle to have

r. Unless this philosopher accepts the Platonic doctrine of the preexistence of the soul (as well as its immortality), he will also want to reject my assumption that there are always the same elementary particles.

different sets of causal powers at two or more instants is for that particle to be supplied with different sets of powers at those instants. To say that God once created, and now sustains, the world is to say no more than this: that God once created and now sustains certain particles—for the world, or nature, or the cosmos, or the universe, is nothing more than the sum of these particles. Moreover, every individual created thing is the sum of certain of these particles, and the point that was made about the created universe as a whole can be made about each individual created thing. If, for example, God sustains a bridge in existence and preserves its causal powers—its capacity to bear a tenton load, for example—this action is just the sum of all the actions He performs in sustaining in existence and preserving the causal powers of the elementary particles that are the ultimate constituents of the bridge; the powers, that is, by which they so affect one another as to continue to form a configuration that exhibits a certain degree of stability.

And this is the entire extent of God's causal relations with the created world. He does not, for example, *move* particles—or not in any very straightforward sense. Rather, the particles move one another, albeit their capacity to do so is continuously supplied by God. Here is an analogy. Suppose that two pieces of soft iron are wound round with wires and a current passed through the wires. The two pieces of iron then become electromagnets, and, if they are close to one another and free to move, they begin to move in virtue of the forces they are exerting upon each other. It would be odd to say that the generator that is supplying the current to the wires was moving the two pieces of iron. It is more natural to say that the generator is moving only electrons, and that the pieces of iron are *moving each other*, this movement being a function of their relative dispositions and the causal powers that are (in a sense) being supplied to them by the generator.

This is everything I want to say about the way in which God acts in and sustains the created world—with one omission. We have not yet raised the question whether the causal powers of a given particle are constant over time. Let us suppose that this is at least very nearly true: Each particle always, or almost always, has the same causal powers.<sup>2</sup>

That is, God always, or almost always, supplies it with the same set of causal powers. Now we have assumed, for the sake of convenience, that there is only one type of elementary particle. It seems reasonable to suppose that causal powers are the only relevant factor in classifying elementary particles into "types." It would follow that the causal powers possessed by a given particle at a given time are almost certainly identical with the causal powers possessed by any other particle at any other time. (This picture of God's action in the world has an interesting consequence. Consider again the example of God's sustaining a bridge in existence and preserving its causal powers. The particles that compose the bridge would have existed even if the bridge had not, since there are always the same particles, and—almost certainly—they would have had the same causal powers. It follows that what God does in sustaining the bridge in existence and preserving its causal powers is something He would have done even if the bridge had never existed, although, in that case, this action would not have fallen under the description "sustaining the bridge in existence and preserving its causal powers.")

Now suppose that God occasionally (and only momentarily) supplied a few particles with causal powers different from their normal powers. Such an action would cause a certain part of the natural world to diverge from the course that part of the world would have taken if He had continued to supply the particles in that part of the world with the usual complement of causal powers. Such a divergence would, presumably, spread—with decreasing amplitude—till it encompassed the entire universe. The early stages of such a divergence we shall call a miracle. For example, imagine that God momentarily supplies unusual causal powers to the particles composing the water in a certain pot, in such a way that those particles (in virtue of their momentarily abnormal effects on one another) follow trajectories through the void that they would not normally have followed, and that, as a consequence, they rearrange themselves into the configuration we call "wine"—at

<sup>2.</sup> This note is addressed to those who believe that there are created rational immaterial beings. It was suggested in the text that anyone who believed in such creatures could accept most of what I say if he rejected my assumption that all "particles" were material, and assumed that some "particles" were immaterial and rational. If anyone avails himself of this suggestion, he must take care to except thinking, immaterial "particles" from the generalizations about particles that are made in the following discussion of the metaphysics of miracles, since it would seem obvious that, e.g., a Cartesian ego's

causal powers will hardly ever be constant over time. Such a being's causal powers will vary with time (if for no other reason) because its internal representations of its circumstances will vary. If I took Cartesianism seriously, I would try to elaborate the model of the created world presented herein to provide a more comfortable niche for immaterial human minds; but I don't and I won't. As for angels, while I take them seriously, I know nothing of their metaphysical nature and thus have no idea of what sort of elaboration of the model would be needed to provide a more comfortable niche for them

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which moment God reverts to His usual policy and continues to supply each of the particles with its normal causal powers.<sup>3</sup>

I like this account of miracles better than either of the two alternative accounts I know of. On one account, a miracle is an "intervention" into the course of nature by God. But the word 'intervention' seems to imply that nature has some sort of native power, independent of God's. and that in working a miracle, God has, as it were, to overpower some part of nature. No theist can accept such a picture of the relation of God to nature; this account of miracles provides a better description of what the deist says God doesn't do than of what the theist says God does do.4

3. This definition of miracle is tailored to fit our account of the created world and its relation to God, an account that is in many respects too simple to be satisfactory. If the account were elaborated, our definition of miracle might have to be modified. For example, we have assumed, for the sake of simplicity, that there are always just the same particles. If we were to assume instead that God sometimes—but very rarely—annihilated particles, or created particles ex nihilo subsequently to the first, great Creation, then we should want to count as miracles the initial stages of the divergences occasioned by such actions from what would have otherwise been the course of events.

If we were to assume that God sometimes moved particles otherwise than by supplying them and neighboring particles with abnormal causal powers—that He sometimes moved particles "directly"—such episodes, too, should be counted as miracles. (It is not entirely clear to me, however, that the alleged distinction between God's moving particles "directly" and "indirectly" is ultimately intelligible. To adapt a remark of Frege's, sometimes I seem to see a distinction, and then again I don't see it.)

4. When this essay was read to the Society of Christian Philosophers, the commentator charged the author with deism. (Talk about odium theologicum!) In this he claimed to be following the medieval Latin authority: The position I propound, that alterations in the created world are not directly caused by God, "is stigmatized as (in effect) a form of deism by almost every important medieval Christian philosopher." Well, it would have to be "in effect," since the words deista and deismus occur in no medieval manuscript—or if they do, this is not known to the editors of the Oxford English Dictionary, who derive the French déiste directly from deus. Since 'deist' (when used in a dyslogistic sense; it has sometimes been used to mean 'theist') has never meant anything but "person who believes in a Creator on the basis of reason alone, and who denies revelation, miracles, Providence, and immanence," "in effect" cashes out to this: Someone who denies that God directly causes alterations in the created world denies God's immanence. But a God who continuously sustains all things in existence and continuously conserves their causal powers is immanent enough for me. In such a God, "we live and move and have our being" (Acts 17:28); "in him all things hold together" (Col. 1:17). (I hold, moreover, that no created thing could possibly exist at a given moment unless it were at that moment held in existence by God; and no created thing could possibly have causal powers at a given moment unless it were at that moment supplied with those powers by God.)

The alternatives to this position are occasionalism and concurrentism. Occasionalism is one of those high-minded philosophical depreciations of God's works that come disguised as compliments to God's person. As, for example, Docetism devalues the Incarnation, occasionalism devalues the Creation. What God has made and now sustains is

According to the second alternative account, a miracle occurs when God causes an event that is a "violation of the laws of nature." I like this alternative better than the other, but I have a rather technical objection to it. Let us call a contingent proposition a law of nature if it would be true if God always supplied the elementary particles with their normal causal powers, and would, moreover, be true under any conditions whatever that were consistent with this stipulation. For those who are familiar with the philosophical use of the concept of "possible worlds," here is a more precise definition: A proposition is a law of nature in a possible world w if it is a contingent proposition that is true in all possible worlds in which elementary particles always have the causal powers they always or almost always have in w. Now if the proposition L is a law of nature, then we can say that an event violates the law L if the particles whose joint activity constitutes that event follow, while the event is going on, trajectories that are inconsistent with the truth of L. Roughly: An event violates a law if the law

substance, not shadow. Concurrentism is the doctrine that God must cooperate with a created thing in order for that thing to act on another thing. I find this doctrine hard to understand. Does it credit created things with the power to produce effects or does it not? In the former case, why is God's cooperation needed to produce the effect? In the latter case, Creation is devalued.

The commentator also endorsed a curious medieval argument that is supposed to show that a certain sort of miracle requires either occasionalism or concurrentism. Consider the three young men in the fiery furnace. If fire and flesh really had intrinsic causal powers, powers that could be exercised without God's cooperation (the argument runs), then God could have preserved the three young men only by altering the powers, and hence the natures, of the fire or the flesh-in which case they would not have been fire or flesh. There seems to me to be little to this argument. The causal influence of the fire would have had to pass from one place to another to affect the flesh, and God could miraculously block this influence at some intermediate point in space without in any way altering the fire or the flesh. Interestingly enough, in the apocryphal "Song of Azariah in the Furnace" (which the Jerusalem Bible inserts between Daniel 3:23 and the Song of the Three Children), just this line is taken: "But the angel of the Lord came down into the furnace [and] drove the flames of the fire outward, and fanned in to them, in the heart of the furnace, a coolness such as wind or drew will bring, so that the fire did not even touch them or cause them any pain or distress." The commentator does consider this sort of possibility, but suggests that it represents God as engaging in an unseemly struggle with a creature; "resisting the power of the fire," as he puts it. Similarly, I suppose one might argue that God would not, whatever the Psalmist might say, send His angels to support one, lest one dash one's foot against a stone. That would be "resisting" the power of the stone or of gravity or something. Such mindedness is too wonderful for me; it is high, I cannot attain unto it. But if one must have a high-minded account of the preservation of the three young men, here is one consistent with what is said in the body of the essay (in a slightly modified version, which takes into account a little elementary physics): As the photons are on their way from the fire to the flesh, God ceases to sustain most of the more energetic ones in existence.

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says that no events of that sort happen. A miracle, then, is an event that violates one or more laws. (It follows from this account of law and miracle that, if there are any miracles, then some laws of nature are false propositions. Some philosophers insist that, by definition, a law of nature, whatever else it may be, must be a true proposition. I can't think why.) I said that I had a rather technical objection to this account of the concept of miracle. The objection is simply that this account is not equivalent to the one I favor: Some events that my account labels 'miracles' this account does not. "Technical" comes in in explaining why. It comes down to this: The two accounts coincide only if the laws of nature are deterministic; that is, only if, given the present state of the world, the laws of nature are so strict that-miracles aside—they tie the world down to exactly one future, a future determined in every detail. For suppose that the laws are indeterministic. Suppose that they are sufficiently "loose" that they permit a certain event A to have either of two outcomes, B or C, and they don't determine which will happen. They allow history to fork, as it were, to go down either of two roads. Suppose that A has happened and suppose that God wants A to be followed by C and not by B. Suppose that, to achieve this end, God supplies certain particles with abnormal causal powers of such a nature that C has to happen. (Speaking very loosely, you might say that He locally and temporarily replaces the indeterministic laws with deterministic ones.) Then C will be a miracle by the account I have given, but not by the violation-of-laws-of-nature account. I prefer so to use the word 'miracle' that this event counts as a miracle. If you disagree, you may regard my use of the word as idiosyncratic.

It will be convenient in what follows to have a uniform way in which to describe God's actions with respect to the created world, a mode of description that comprehends both His ordinary sustaining of particles in existence and His miraculous departures from the ordinary. I shall suppose that whenever God brings about some state of affairs involving created beings, His doing this is the same action as His issuing a certain decree—a pronouncement of the form "Let such-and-such be" or "Let the following be so: ..." For example, "Let there be light" is a decree, and God's issuing or pronouncing this decree is the same action as His creating light. For technical reasons, I shall want to suppose that God's decrees are, as philosophers say, "closed under entailment." This means that if God issues certain decrees—say a decree that p and a decree that q—and if, as a matter of absolute or metaphysical necessity, if p and q are true then r must also be true, then it follows that God, in decreeing that p and q, also decrees that r. For example, suppose that

one of God's decrees is "Let the waters be divided from the waters"; suppose that, as many philosophers, myself included, believe, it is a matter of absolute or metaphysical necessity that if there is water, then there are protons. Then it follows that in issuing this decree, God also issues the decree "Let there be protons." (It will, however, be convenient to except necessary truths from the closure requirement: Let us say that if God decrees certain propositions, and these propositions jointly entail p, it follows that God decrees p, provided that p is a

contingent proposition.)

In this "decree" language, we may represent the action of God with respect to each elementary particle at a given moment as follows. His action consists in His then issuing a decree of the form "Let that now exist and have such-and-such causal powers." If God wished to annihilate a certain particle, therefore, He would not do something to the particle, as I might hit a vase with a hammer if I wished to destroy it. He would simply stop issuing such decrees. (But in our rather simple model of the relations of God to the world, we tacitly assume He never ceases to hold any particle in existence, since we assume there are always the same particles. This feature of our model is not essential to any of the points made in this essay, and could be removed at the cost of putting up with a slightly more complex model.) And for God to work a miracle is for Him temporarily to decree different causal powers for certain particles from the ones He normally decrees. God's actions with respect to the entire created world at any moment subsequent to the Creation are simply the sum of His actions at that moment with respect to all the particles composing the world.5 Thus, God's action

5. We shall presently discuss God's action at the first moment, the moment of Creation. In what follows in the text and in subsequent notes, generalizations about what God does at particular instants should be understood as referring to instants subsequent to the first.

This way of talking raises the question: What, exactly, is the relation of God and His actions to time in our model of God's relation to the world? Let us say the following. First, we shall assume that the existence of time, of "before" and "after," is a function of the existence of the physical world: If there had been no world, there would have been no such thing as time, and one can make no sense of talk of temporal relations except in reference to the physical world. As both St. Augustine and Stephen Hawking have insisted, it makes no sense to ask what happened before—at least in the literal, temporal sense of the world—the world existed. (Hawking employs this analogy: You might as well ask what is happening north of the North Pole.) Secondly, we shall assume that some of God's decrees can be assigned dates (dates provided by the processes of the physical world, the only dates there are): We can ask with respect to a time t what decrees God then issues. (I shall not attempt to prove that these two assumptions are consistent.) Because of our closure condition, however, it is possible that there be decrees of God that are not issued at any particular time. (An example of such a decree can be in the created world at any given moment consists, on this model, in His issuing a vast number of decrees—as many as there are particles—of the form, "Let *that* now exist and have such-and-such causal powers." His issuing these decrees is identical with His sustaining the world.

Let us now turn to the question, What is the place of chance in a world sustained by God? Can chance exist at all in such a world? Or, if it does exist, must its realm not be restricted to trivial matters—say, to such matters as where a particular sparrow falls—if its existence is to be consistent with God's loving providence?

In order to approach these questions, let us ask what it would be for there to be chance in the world. There are various things that can be meant by the word 'chance.' What I shall mean by saying that an event is a "chance" occurrence, or a state of affairs a "matter of chance" or "due to chance," is this: The event or state of affairs is without purpose or significance; it is not a part of anyone's plan; it serves no one's end; and it might very well not have been. A chance

found in note II.) I do not insist that the two assumptions I have made about God and time represent the ultimate metaphysical truth. Those who hold that God is entirely "outside time" are faced with certain authoritative documents—such as the Bible—which, on the face of it, say that God does one thing at one time and another thing at another time. Such philosophers generally have some way of interpreting assertions of this sort so that these assertions are seen to be compatible with their theory of an extratemporal God. They should feel free to interpret my assertions about God's actions at particular times in the same way.

6. But, owing to our closure condition, He does not issue only those decrees; He also decrees, at any given moment, any contingent proposition entailed by the totality of that vast ensemble of decrees about individual particles. Or, at any rate, this follows if we interpret our closure condition (which, as stated, does not refer to time) as having this consequence: If, at t, God decrees certain propositions, and these propositions determines the contingent proposition p, then at t, God decrees that p. Thus, at an instant t, God then decrees every proposition that is true in all possible worlds in which, at t, there are the same particles as there are in actuality and in which each of these particles has at t the same causal powers it has in actuality.

We should note that the thesis that God decrees at t that a certain particle then exist and then have certain causal powers does not entail that He decrees at t that it then be at any particular place. "Let that now exist and have such-and-such causal powers" is not the same decree as "Let that now exist and be right there and have such-and-such causal powers." (A similar point applies to velocity and the higher derivatives of displacement.) More generally: From the thesis that God at t is sustaining the universe, it does not follow that He then decrees the particular arrangement of particles that in fact obtains at that time. Here is an imperfect analogy. From the fact that a gardener is now tending the flowers in a certain garden (and is thus in a sense now sustaining them in existence) it hardly follows that he is now determining the way they are now arranged. I return to this point in note 11.

event, in other words, is one such that, if someone asks of it, "Why did that happen?" the only right answer is: "There is no reason or explanation; it just happened." But you must treat this statement charitably. I do not mean to imply that a "chance" event in this sense has no explanation of any sort. If Alice suddenly remembers that she had promised to buy a box of crayons for her son, and turns into an unfamiliar street in search of an appropriate shop, and is struck and killed by a car whose brakes have failed, her death may well be a "chance" occurrence in the sense I mean—someone who did not believe in divine providence would almost certainly say that it was—even though in one sense her death has an obvious explanation: She was struck by a car. But if her grieving husband were to cry in despair, "Why did she die?", it would be a cruel joke to tell him that she died because she was struck by a large, heavy vehicle moving at fifty miles an hour. That is not the sort of explanation he would be asking for. By calling an event a "chance" event, I mean that it has no explanation of the sort Alice's husband might ask for: It has no purpose or significance; it is not a part of anyone's plan.

It does seem that there are many events of this sort; some horrible, some benefic, some of no consequence to anyone. But there are people who believe that this seeming is mere seeming and that either there are no chance events in this sense, or, if there are, they are always events

7. Some philosophers believe that there are impersonal but intelligible "worldhistorical" processes, and that these processes somehow confer intelligibility or significance on certain of the events that issue from them. For such an event there would be an answer to the question, Why did that happen? If there are such world-historical processes, one would not want to call their products "chance" events, despite the fact that-assuming that the world-historical processes are not instruments of God's purpose—they are not a part of anyone's plan (unless it were the plan of a personified abstraction like History). The primary purpose of the qualification "It might very well not have been" is to deny the status of a "chance" event to an event—as it may be, the rise of capitalism-that is a necessary product of some impersonal but intelligible worldhistorical process like the Labor of the Concept or the Dialectic of History. Since the idea of such processes is a vague one, I will not attempt to be precise about the meaning of "It might very well not have been." I will explicitly and formally exclude only metaphysically necessary events (if such there be) and metaphysically necessary states of affairs from the category "might not have been." (Thus, if Spinoza is right, no event or state of affairs can be ascribed to "chance.") Readers for whom Spinozism, and historicism of the Hegel-Marx-Spengler variety, are not live options can safely ignore the qualification "It might very well not have been." In any case, the theist will say, first, that Spinozism is false, and secondly, that either there are no "world-historical" processes, or, if there are, their existence is ordained by God and any necessary product of such processes will therefore be a part of someone's plan. The theist, therefore, may ignore the qualification "It might very well not have been." I shall do so in the sequel.

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that are of no consequence to anyone. I have in mind those people who believe in divine providence and who take a certain view, which I shall proceed to describe, of divine providence. Such people think that God not only knows of the fall of every sparrow, but that the fall of every sparrow is a part of God's plan for His creation. Presumably they think that the exact number of hairs on one's head is also a part of God's plan. Other people may find the attribution of every detail of the world to providence bizarre, but say that at any rate all those events that would be accounted important by human beings-Alice's death, for example—must have a place in God's plan. A person who takes this view will say that when Alice's grieving husband asks, "Why did she die?", there is an answer to this question, an answer that God knows even if no human being knows it. My purpose in the remainder of this essay will be to suggest that this is wrong. I want to suggest that much of what goes on in the world, even much of what seems important and significant to us, is no part of God's plan-and certainly not a part of anyone else's plan-and is therefore due simply to chance.

If there is chance in a world sustained by God, what are its sources? Where, as it were, does it "come from"? Let us recall our picture of God's relation to the world: The world consists of elementary particles, and God created the world by creating these particles simultaneously at some moment in the past; God sustains each of them in existence and continuously "supplies" each of them with its causal powers; following the Creation, the world evolved in a manner determined, insofar as it was determined, by the causal powers of its constituent particles; the causal powers supplied to a given particle are normally invariant, but God may, of His own good pleasure, momentarily supply certain particles with different sets of causal powers from the ones they normally receive from Him, and, if He does this, then a miracle occurs.

If God has this relation to the created universe, what is meant by His "plan" for the created universe? I believe that we should, as a first approximation, identify God's plan with the sum total of what He has decreed. (I say "as a first approximation" because I will presently qualify this definition.) Thus, if God has issued the decree "Let there be light," then the existence of light is a part of His plan. If He has not issued the decree "let there be lies," then lies are no part of His plan. We should remember that a plan—God's plan or anyone's—may take account of a certain possibility without requiring that that possibility be realized. For example, bank robbers planning their getaway may plan for the contingency of leaving the city by air—they have bought airline tickets—but not plan to leave the city by air. Leaving the city

by air is not a part of their plan in the way that arriving at the bank at 3:00 P.M. is. We should also remember that the fact that God knows that something will happen does not mean that that thing is a part of His plan. God may, therefore, have known before there were any rational creatures that some of them would someday tell lies, and His plan for the world may contain measures for dealing with lies should any lies be told; but it does not follow from these things that lies are a part of His plan. Now here is the qualification of our definition of God's plan that I alluded to a moment ago. It may happen that God sometimes issues decrees in response to events that He has not decreed. For example, suppose that a young man is dying following a car wreck and that God had not decreed that that car wreck should occur. Suppose the young man's mother prays that his life be saved, and that God grants this prayer by performing a miracle in virtue of which the man recovers. We shall not count this miraculous recovery as a part of God's plan, since it was contingent on an event—the car wreck—that God had not decreed. We might call the decree God issued to bring about the man's recovery a reactive decree, since it was issued in reaction to an event that God did not bring about. We may define a reactive decree of God's as a decree He would not have issued had some event not decreed by Him not occurred. Our revised definition of God's plan is: God's plan consists of the totality of all His decrees other than reactive decrees.8

If this is the correct picture of God's relation to the created world and His plan for it, there would seem to be, within such a world, at

8. Or we might call this totality "God's unqualified plan" or "God's eternal plan" or "God's plan ante omnia saecula." We could also speak, for any contingent proposition p, of "God's plan given that p": If the conditional "if p then q" is a part of God's eternal plan, and if p is true, then q is a part of "God's plan given that p." If q is a part of God's plan given that p, and if p is not a part of God's unqualified plan, then q will be a part of God's plan given that p, but not a part of God's unqualified plan. If q is a part of God's plan given that p (but not a part of God's plan ante omnia saecula) and if p is a proposition that we all know to be true-or which we and all of our coreligionists believe to be true—it will be natural for us to speak of q as being "a part of God's plan"; in fact it would be inadvisable for anyone to speak otherwise, except (as in the present case) when engaged in highly abstract theological speculation. Thus, Christians may properly speak of the Incarnation as being "a part of God's plan," even if there would have been no Incarnation if there had been no Fall: for, surely, there is some contingent proposition p (perhaps "Man falls from his original perfection," or the conjunction of this and various other propositions) such that the Christian will believe that p is in fact true and also believe that "If p, then God becomes man" is a part of God's eternal plan.

We should note that God's eternal plan is not (at least according to orthodox Christian theology) a necessary product of the Divine Nature. "There is a created universe" is a part of God's eternal plan, but not, orthodoxy has it, a necessary truth.

least three possible sources of chance, or of events or states of affairs that are not a part of God's plan: the free will of rational creatures, natural indeterminism, and the initial state of the created world. (I call these three sources of chance, but I realize that proponents of various philosophical theories may hold that every instance of some one of these sources is also an instance of one of the other two. For example, a philosopher who holds that free will and determinism are incompatible will probably maintain that every instance of human free will is also an instance of natural indeterminism.)

Let us first consider human free will. I take it to be obvious that if God decrees (I do not mean commands) that a certain human being on a certain occasion behave in a certain way, then that human being loses his freedom of choice on that particular occasion. When, for example, God "hardened Pharaoh's heart," Pharaoh-at that particular moment-did not freely choose to forbid the Hebrews to leave Egypt. Thus, if there is such a thing as human free will, it cannot be that all of our choices are like Pharaoh's. And it is certainly not obviously the biblical picture of God's relation to man that all of our choices are of that sort. For example, Ecclesiasticus says of God (15:4): "He himself made man in the beginning, and then left him free to make his own decisions." (Admittedly, Christians have to deal with some difficult passages in Romans on this point.) If we have free will, therefore, the manner in which any particular person exercises this free will is no part of God's plan, and likewise the consequences of free acts, even if they occur thousands of years after the act, are no parts of God's plan. I must point out that this is not an attempt to absolve God of responsibility for the consequences of the free acts of creatures. After all, that an event is not part of one's plans does not necessarily mean that one is not responsible for it. If the man who fell among thieves had died beside the road from Jerusalem to Jericho, this would not have been a part of any plan of the priest or the Levite, but they would nonetheless have been responsible for his death. Whether God should be held responsible for the evils caused by the abuse of human free will-and He could certainly prevent most of these evils, if not all of them—is not the present question. I am arguing only that they are not part of His plan for the world, which is a relatively weak thesis.

A second source of chance in the world is natural indeterminism. Indeterminism is the thesis that the distribution of all the particles of matter in the universe at a given moment, and their causal powers at that moment, do not determine the subsequent behavior of the particles. In other words, an indeterministic universe is one in which a given

state of affairs can have more than one outcome. The Greek atomists held that atoms-what are now called elementary particles-could swerve in the void, and something very much like this is true according to modern physics. If God's causal relations with the world are confined to continuously holding the elementary particles in existence and continuously supplying them with their causal powers, then He does not decree the outcomes of such "swerves in the void," since the "swerves" are not determined by the causal powers of the particles. And the consequences of such undetermined events can show up at the level of ordinary observation, if they are sufficiently amplified. A Geiger counter is an amplifier designed for this purpose. (Another effective amplifier can be found in the collisions of rolling spheres. Imagine a billiard table on which perfectly spherical, perfectly elastic billiard balls are in motion, without loss of kinetic energy to friction or to collisions with the sides of the table. Imagine a second billiard-table-and-balls setup that is as close to being an absolutely perfect duplicate of the first as the laws of nature allow. If the "laws of nature" are those of nineteenth-century physics, the second table will be an absolutely perfect duplicate of the first sans phrase, and the behavior of the balls on the second table will—presumably—duplicate exactly the behavior of the balls on the first table forever. Suppose, however, that a rolling billiard ball exhibits the position-momentum and time-energy uncertainties predicted by Heisenberg. For an object as big as a billiard ball, these uncertainties are minuscule indeed. Nevertheless, the capacity of the collisions of rolling spheres to magnify slight deviations is astounding: Within a few minutes the arrangements of balls on the two tables will be entirely different.)

Since the actual physical world seems in fact to be indeterministic, it is plausible to suppose that there are a great many states of affairs which are not part of God's plan and which, moreover, cannot be traced to the free decisions of created beings. I very much doubt that when the universe was (say) 10<sup>-45</sup> seconds old, it was then physically inevitable that the earth, or even the Milky Way galaxy, should exist. Thus, these objects, so important from the human point of view, are no part of God's plan—or at least not unless their creation was due to God's miraculous intervention into the course of the development of the physical world at a relatively late stage. I see no reason as a theist, or as a Christian, to believe that the existence of human beings is a part of God's plan. This may seem a shocking statement. Let me attempt to palliate the shock. First, I do not claim to know that the existence of our species is not a part of God's plan. Secondly, I am sure that the

existence of animals made in God's image—that is, rational animals having free will and capable of love—is a part of God's plan. I am simply not convinced that He had any particular species in mind. Thirdly, I do not deny God's omniscience. I do not deny that He knew from the beginning that humanity would exist; but what is foreknown is not necessarily what is planned. Fourthly, having come into existence, we are now in God's care and the objects of His love and the instruments of His purpose. Here is an analogy: When my wife and I decided to have a child, we did not decide with respect to some particular child to have that child, as a couple might decide with respect to some particular child to adopt that child. But now that our child is in existence, she, that very individual and no other, is in our care and is the object of our love. I concede that if God knows the future in every detail, then He knew before humanity existed that that particular species would exist; and my wife and I did not know of Elizabeth van Inwagen, before her conception, that she, that very individual, would exist. But if God knew from the beginning of time, or even "before all worlds," that humanity would exist, it does not follow that He decreed the existence of humanity; He may for all I know have issued no decree more particular than "Let there be a species in My image and likeness."

I now turn to the third source of chance in the world: the initial state of things. (I ignore the problem presented by the fact that, according to most of the current cosmological models, although the world has a finite age, there was no first instant of its existence—or if there was a first instant, the world was then of zero volume and infinite density, an idea that seems to make no sense.)

At the first moment of the existence of the physical universe there were, let us say,  $(2.46 \times 10^{80}) + 2319$  particles, each having a certain set of causal powers, a certain position in space, and a certain velocity. No doubt this "initial arrangement" (so to call it) suited God's purposes; if it did not, of course, there would have been some other initial arrangement. But is it conceivable that this was the only one out of all possible initial arrangements that suited God's purposes? Is it conceivable that God chose this arrangement because it was better for His purposes than any of the infinitely many alternatives? Well, I find that very hard to believe. I don't mean to deny that God could hold all of the infinitely many possible initial arrangements before His mind at once, and then say, "Let that one be." (Of course, this is mere picture-thinking, treating God as if He were just like a human being, with the

minor difference that He is infinite. But picture-thinking is all we are capable of. When I say I don't mean to deny this, I am saying that I don't mean to deny that it's the best picture.) I do, however, doubt whether any one of the alternatives could be superior to all the others. To me that sounds as absurd as saying that, if an artist wants to draw a portrait in chalk, then one particular arrangement of calcium, carbon, and oxygen atoms, out of all the possible arrangements, must be the arrangement that would constitute the best possible piece of chalk for the job.

Well, suppose there are various alternative initial arrangements that would suit God's purposes equally well. Doubtless if there is more than one such arrangement there are infinitely many. But let us suppose for the sake of simplicity that there are just two, X and Y. We are supposing, that is, that for God's purposes to be accomplished, either X or Y must come into existence, but it makes no difference which; it is a matter of sheer indifference to Him. Now if God wishes either X or Y to come into existence, what decree shall He issue? There would seem to be three possibilities:

- (1) "Let X be"
- (2) "Let Y be"
- (3) "Let either X or Y be."10

Leibniz, though he does not talk of things in exactly these terms, might be interpreted as saying, first, that (3) is impossible because God creates only "complete" states of affairs, fully detailed ones, "possible words"; secondly, that God cannot issue either (1) or (2), because that would be for God to act without a sufficient reason for His action; and, thirdly, that there must, therefore, be a best possible initial state, since there in fact is a created world.

I would deny the first of these assertions. It does not seem to me to be logically or metaphysically impossible that God should decree that either X or Y should be without decreeing that X should be and without decreeing that Y should be. Suppose God does decree that either X or Y exist; suppose Y thereupon comes into existence. 11 Then it is no part

<sup>9.</sup> Or, better, think of a number of this order of magnitude that isn't mostly zeros.

<sup>10.</sup> We must be careful about what we mean by calling (1), (2), and (3) three possibilities, since, by our closure condition, if God issues either (1) or (2) He ipso facto issues (3). The three possibilities I mean to call attention to are: God issues (1); God issues (2); God issues (3) without issuing (1) or (2).

<sup>11.</sup> The moment Y comes into existence, there will, of course, be a particular number of particles and each will have a determinate position and velocity and complement of causal powers It is at that point that God must, if He is to sustain the world He has

of God's plan that Y—as opposed to X—exist, and the result of His decree might just as well have been the existence of X. We may therefore say that Y exists owing simply to chance, and that every result or consequence or Y that would not also be a result of X is due to chance. There could, therefore, be chance events even in a wholly deterministic world that was created and is sustained by God. If, moreover, we assume that God cannot, after all, decree that either X or Y exist except by decreeing that X exist or else decreeing that Y exist, this will not remove the element of chance from the world. It will simply locate the ultimate source of that chance within the internal life of God, rather

created, begin issuing "a vast number of decrees—as many as there are particles—of the form 'Let that now exist and have such-and-such causal powers'." Here is another imperfect horticultural analogy. Suppose I plant a tree in my garden. Within certain limits, it may not matter much to me where the tree is. I may, within these limits, choose a spot at random. But once I have planted the tree and it is firmly rooted at a particular spot, I must tend it where it is. It's no good watering a spot ten feet to the left of the tree, even if my purposes would have been as well served by planting the tree at that other spot.

I said in note 6 that it does not follow from the fact that God at t issues decrees that then sustain the universe in existence that He then decrees the current arrangement of particles. I will now go further and say that, if our model of God's relation to the world is anything like right, then at at most one instant does He then decree the current arrangement of particles: the first. And if the decree of God that brings the universe into existence is indefinite (like "Let either X or Y be"), then at no instant does He then decree the current arrangement of particles. (Moreover, the existence of a first instant of time is a consequence of the limitations of our model: A more sophisticated model would allow for the possibility that, while the temporal sequence has a greatest lower bound, it has no earliest member.) It would, however, be possible for God to decree the arrangement of particles at t without then decreeing it. Suppose, for example, that at  $t_0$ (the first moment of time), God then decrees a perfectly definite arrangement of particles; suppose that at every instant in the interval having  $t_0$  as its earliest member and t as its earliest nonmember, He then decrees the existence of the same particles that existed at t, and also decrees a deterministic set of laws; and suppose that at t He then decrees the existence of the same particles that existed at  $t_0$ . Only one arrangement of particles at twill be consistent with this set of decrees and it therefore follows that God decrees the arrangement of particles at t. Since, however, He does not issue all of these decrees at t, we cannot say that at t He then decrees the current arrangement of particles. But, of course, if the theory presented in the text is correct, God does not, even in this sense, decree the arrangement of particles at any time: There are, in fact, possible worlds in which God has issued the same decrees He has issued in actuality, and in which no particle is where it is in actuality. Nevertheless, God may have (and if any revealed religion is true, has) decreed many of the features the universe has at any given moment: that it then contain living creatures, for example. It should be evident from what has been said in this note and in note 6 that we cannot validly deduce from the two premises: (i) God has decreed that at t there be living creatures, and (ii) at t, God then issues decrees that sustain in existence all the living creatures there are at that moment, the conclusion that at t God then issues the decree that there be living creatures at that moment.

than in the results of an indefinite decree. For if God must issue a decree that X exist or else issue a decree that Y exist, and if He has no reason to prefer one of these states of affairs to the other—if it is really, from God's point of view, six of one and half a dozen of the other—then there seems to be no way to avoid the conclusion that some analogue of a coin toss takes place within the Divine Nature. An analogy is provided by Buridan's Ass; this unfortunate animal, you remember, is forced to choose between two equally attractive and accessible piles of hay. If the poor creature is not to starve, it must make an arbitrary choice. And, presumably, within each animal—even within rational animals like ourselves—there exists some mechanism, some biological analogue of a coin toss, for making arbitrary choices. Occasional reliance upon such a mechanism is not beneath the dignity of an animal, even a rational animal, but I find it wholly incongruous to suppose that the Divine Nature contains anything remotely resembling a coin-tossing mechanism. To suggest this seems to be almost to suggest that the Lord of all is, as Zeus was said to be, one of the subjects of the goddess Tyche or Chance. I prefer to think that God is capable of decreeing that a certain indefinite condition be satisfied without decreeing any of the indifferent alternative states of affairs that would satisfy it. However this may be, the following result seems secure: If there are alternative initial arrangements of particles, any of which would have served God's purpose for His creation equally well, then certain features of the world must be due to mere chance. How pervasive these features may be, and how important they might seem to us, are, of course, further questions, questions that are not answered by anything that we have so far said. And this same result, the existence of states of affairs due to chance, follows from our consideration of human freedom and natural indeterminism. I do not doubt that all three sources of chance have in fact been in operation, and that many of the features of the actual universe are due to them-perhaps even features as prominent as the human race or the Local Group. I do not think that such a view of the place of chance in the formation of the universe is incompatible with the proposition that God is the Maker of all things, visible and invisible. Even if the planet Mars (say) is not a part of God's plan, it is entirely composed of particles which He made in the beginning and which exist from moment to moment only because He continues to hold them in existence and which continue from moment to moment to form a planet only because He is continuously supplying them with the causal powers by which they mutually cohere. I suppose that we exist only by chance, and yet it is in God that we live and move and have our being. And, as I have implied, creatures that, like us, exist by chance, may well be filling a divinely ordained *role*, and in that sense be serving God's purpose—rather as individual soldiers may be serving a general's purposes, even though the battle plan the general has drafted does not include any of their names. (But again, the analogy is imperfect, for the general, we may suppose, neither knows nor cares about individual private soldiers—even if he is concerned about their collective welfare—whereas God knows all about each of us, and loves each of us with a depth and intensity that are without human parallel.)

If what I have said so far is correct, then it seems very likely that among the events that are due simply to chance and not part of God's plan are certain evils; or perhaps even all evils. In the remainder of this essay I want to examine this idea and its consequences.

If much of the world is due to chance, and if much of the world is infected with evil, then it would be reasonable to suppose, on purely statistical grounds, that at least some evil is due to chance. Many theists, moreover, ascribe the very existence of evil to an abuse of the divine gift of free will by created beings. If that speculation is correct, then the very existence of evil is a matter of chance; that is, there is simply no answer to the question, Why is there evil? and it is not correct to say that God planned to create a world containing evil. Since people seem to be particularly likely to misunderstand the point of suggestions like this one, I will repeat something I have said before: This suggestion is in no way supposed to be a "solution to the problem of evil," since it is consistent with the proposition that before evil ever was, God knew that there would someday be evil and could have prevented it. I mention the point that (if evil is wholly due to the creaturely abuse of free will) evil is not a part of God's plan for His creation, simply to distinguish this point from the points I wish to discuss. The points I wish to discuss involve particular evils and their relation to God's plan.

What I want to say about particular evils is best made clear by illustration and example. I will consider two evils, one very particular—the accidental death of a particular person—and the other more general. I will discuss the more general evil first. I think that the existence of a certain disease will provide a good illustration of the point I want to make. For the sake of a concrete example, I will discuss rabies—an arbitrary choice, except that I have deliberately chosen a rather horrible disease. (A disease like rabies falls in the category that students of the problem of evil call "physical" or "natural" evil. But in what follows, I will make no explicit use of the distinction between natural and

"moral" evil.) I see no reason to suppose that God has decreed the existence of rabies. In my view, the rabies virus simply evolved and it might not have. If the initial arrangement of things had been slightly different, or if the indeterministic course of the natural world had taken a slightly different turning in the remote past (on any of uncounted billions of occasions), the particular disease we call rabies would never have come into existence. (But other diseases might have. If the rabies virus had never evolved, the world's catalogue of diseases might have been a bit less horrible—or it might have been a bit more horrible.) Is there any reason a theist should want to deny this? Although I think that there is no explanation of the existence of evil-I don't deny that there is an explanation of the fact that God permits evil-I can see why a theist would want to say that there must be an explanation of the existence of evil. Although I think that there is no explanation of the fact that many people die in agony-I don't deny that there is an explanation of the fact that God allows people to die in agony-I can see why a theist would want to say that there must be an explanation of the fact that many people die in agony. Well, suppose there were explanations of these things. Suppose there were a good explanation of the fact that there is evil. Suppose there were a good explanation of the fact that some people die in agony. Why should the theist want or expect an explanation of the fact that one of the evils is the particular disease rabies, or of the fact that some of the agonizing deaths are due to that disease? By the same token, if there is an explanation of the fact that God permits the existence of evil and agonizing death (even if there is no explanation of the existence of these things), why should anyone want or expect an explanation of the fact that rabies is one of the evils or is one of the causes of the agonizing deaths that God permits? I think that this point is an important one, for theists are often challenged to produce an explanation—even a possible explanation-of the existence of this or that evil, or of God's permitting that evil to come to be or to continue. Any many theists, in their pride, construct fanciful explanations of particular evils as divine punishments. (Christians who explain particular evils-like the Bubonic Plague or the AIDS virus—as divine punishments are neglecting the story of the tower at Siloam and the story of the man born blind.) But there is no reason that the theist should believe that there are any such explanations. This point is even more important in connection with the misfortunes of individual persons, to which I now turn.

Let us consider again the case of Alice, who, by sheerest chance, turned into a certain street and was killed by a car whose brakes had

failed. Let us borrow a term from the law and call her death an example of death by misadventure. Although I think that there is no explanation of the existence of death by misadventure—I don't deny that there is an explanation of the fact that God permits the existence of death by misadventure-I can see why a theist would want to say that there must be an explanation of the existence of death by misadventure. Well, suppose that there were an explanation of the fact that there are deaths by misadventure. Why should the theist want or expect an explanation of the fact that Alice, then and there, died by misadventure? By the same token, if there is an explanation of the fact that God permits the existence of death by misadventure, why should anyone want or expect an explanation of the fact that God permitted Alice to die by misadventure? Why should there be an answer to the question, "Why did Alice have to die that way?"? Suppose that the driver of the car had seriously considered having his brakes checked a few days ago, when he first noticed certain ominous symptoms, that he freely decided to put it off till he was less busy, and that, if his deliberations had gone the other way, Alice would now be alive and well. Suppose that God's relation to Alice and the driver and their circumstances was confined to sustaining certain elementary particles (such as those that composed Alice and the driver and the braking system in the latter's car) in existence and supplying those particles with their normal causal powers. God would, of course, have known that the accident was to occur and could have prevented it by a miracle—one unnoticed by any human being, if He wished. If it really is true that God has a general reason for permitting deaths by misadventure, need He have a particular reason for permitting this death by misadventure? Why?

It is clear that many theists think that He must have such a reason. Every now and then, in Billy Graham's newspaper column and similar places, one finds explanations—admittedly speculative—of how a particular death by misadventure (or robbery or rape or illness) might serve God's purposes. I am not, as some are, morally offended by these explanations, but I find them singularly unconvincing, even as speculations. I certainly do not want to deny that sometimes particular deaths by misadventure, and other misfortunes of individual persons, may be such that God has a special reason for allowing those very misfortunes. I do not want to deny that God sometimes miraculously intervenes in the course of nature—say, in answer to someone's prayer for a loved one's safety—to prevent such misfortunes. I do not wish to deny that God sometimes intervenes miraculously in the course of nature to cause individual misfortunes. I want to deny only that there

is any reason to suppose that, for every individual misfortune, God has a reason for not preventing that misfortune. (The English word misfortune is rather a milk-and-water word. My use of it faute de mieux should not be allowed to obscure the fact that my thesis comprehends events like the sudden death of a young woman who, had she not happened to turn down a certain street, might well have lived a long, happy, and useful life. Some would use the word tragedy for such events, but, in my usage at least, the word 'tragedy' carries the inescapable implication that the event to which it applies is, above all, a meaningful event, the very implication I want to avoid.)

Why should a theist deny any of this? One reason might be a conviction that there could not be a general explanation of God's allowing deaths by misadventure unless there were, for each such event, an explanation of His allowing it. A conviction, that is, that a general explanation of God's allowing deaths by misadventure could only be the sum of the explanations of His allowing this one and that one and the other one. I see no reason to believe this. After all, most theists believe that there is a general explanation of God's allowing sin-as it may be, a refusal to interfere with the free choices of creatures—that is independent of such reasons as He may have for allowing this, that, or the other sin. If this belief is correct, then, even if God had no special reason for allowing Cain to murder Abel, no reason peculiar to that act, no reason beyond His general policy of not interfering with the free choices of His creatures, it would not follow that He had no general reason for allowing sin. By analogy we may speculate that even if God had no special reason for allowing Alice to be struck by a car, no reason peculiar to that event, no reason beyond His general policy of allowing deaths by misadventure (whatever exactly the reasons underlying that policy might be), it would not follow that He had no general reason for allowing deaths by misadventure.

Or a theist may feel that it is simply not fair to Alice that she should die young, and that this unfairness could be acceptable only if God had a special reason for allowing her premature death. (A complication arises here. Most theists believe in an afterlife, and thus may be inclined to say that, in theory at least, an early death is not necessarily a misfortune. But this complication is due to a feature of the example that is not essential to the problem; it would not have arisen if, instead of assuming that Alice died when struck by the car, we had assumed that she lived out her normal span, but crippled and in pain.) One might point out that, if God indeed does allow people to be subject to Fortune and her wheel, then He has given everyone the same chance. Suppose,

moreover, that He has a good reason for allowing us to be (to some extent) at the mercy of Fortune. If Fortune's wheel is fair, how, then, can the losers say that they have been treated unfairly? If the twins Tom and Tim both wish to propose marriage to Jane, and they take this problem to their father, and he orders them (this is in the old days) to draw straws, and Tim loses, can he say that he was treated unfairly by his father because his father had no special reason for denying him the opportunity to propose to Jane? No, the situation demanded a lottery, and Tim has no complaint unless the lottery was unfair. It will probably occur to someone to protest that life's lottery is not fair and that everyone does not have the same chance. (For example, someone living in Beirut has a greater chance of sudden violent death than someone living in Zurich.) But whatever problem this fact may raise for the theist, it does not seem to have anything in particular to do with chance. It is simply a special case of whatever problem is raised for the theist by the fact that life's blessings are not distributed equally. People are not equal in wealth, intelligence, native strength of character, or physical constitution. No one supposes that these inequalities are always a matter of desert. (What could one do to deserve greater native strength of character than someone else?) It may be that there are good reasons. known to God, for these inequalities. But such good reasons would not make the inequalities fair—not unless the reasons in some way involved desert. The theist may say all sorts of things in response to this difficulty: that the potter may do as he likes with his clay, for example, or that we deserve little from God and that no one gets less than he deserves and that it is not unfair for some to get more than they deserve provided no one gets less. But whatever the theist says about inequalities in the distribution of, say, intelligence and strength of character, I don't see why he shouldn't say the same thing about inequalities in the distribution of (for example) the probability of sudden violent death. In a nutshell: If it is fair that we should all be subject to chance in some degree, then it would seem to be unfair that we should be subject to unequal chances only if unequal distribution of any sort of advantage or disadvantage is unfair. It might be good at this point to remember the words of the Preacher (Eccl. 9:11–12):

I returned, and saw under the sun, that the race is not to the swift, nor the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding, nor yet favor to men of skill; but time and chance happeneth to them all.

For man also knoweth not his time: as the fishes that are taken in an

evil net, and as the birds that are caught in the snare; so are the sons of men snared in an evil time, when it falleth suddenly upon them.

If what I have said is true, it yields a moral for students of the problem of evil: Do not attempt any solution to this problem that entails that every particular evil has a purpose, or that, with respect to every individual misfortune, or every devastating earthquake, or every disease, God has some special reason for allowing it. Concentrate rather on the problem of what sort of reasons a loving and providential God might have for allowing His creatures to live in a world in which many of the evils that happen to them happen to them for no reason at all.<sup>12</sup>

12. This essay owes a great deal to chap. 6, "The Ordainder of the Lottery," of P. T. Geach's Providence and Evil (Cambridge: Cambridge University Press, 1977). I doubt, however, whether Professor Geach would approve of everything I say. I do give "real assent to the doctrine that all events however trivial fall within the ordering of Providence" (p. 116); I do not, however, take that doctrine to entail that God has chosen the number of hairs on my head, or even that He chose Matthias over Joseph Justus to fill the vacant apostolate of Judas. As to the latter case, we have not been told anything about this; what we may presume is that God was content that Matthias should hold that office. I think that Geach believes something stronger than this. Proverbs 16:33, which Geach cites, refers (I believe) only to the rather special case of the sacred lots, and, in any event, "the way it falls out is from the Lord" is open to various interpretations.

This essay was read at a conference on the philosophy of religion at Cornell University in February 1987 and at a meeting of the Society of Christian Philosophers in Chicago in May 1987. On the latter occasion, the commentator was Alfred J. Freddoso, some of whose spirited animadversions I have addressed in notes 4 and 8. (Freddoso's essay in the volume in which this essay was originally published contains much that is relevant to note 4 and to other matters discussed herein.) I thank Norman Kretzmann, Eleonore Stump, Richard Swinburne, Lawrence H. Davis, and, especially, William P. Alston for helpful criticisms.

An extremely interesting book (not yet published in the United States) has come into my hands too late to influence this essay: God of Chance, by D. J. Bartholomew (London: S.P.C.K., 1984). This book brings the expertise and perspective of a statistician to bear on the question of the relation of chance and God's action in the created world.