Classical determinism can be defined in terms of predictability; indeed, it is sometimes called 'predictive determinism.' (Recall Laplace's demon who could predict the entire future on the basis of Newtonian mechanics plus the positions and velocities of basic particles at a particular time.) Predictability can be explicated in terms of logical entailment. Let us say that a universe is deterministically predictable if a complete description of the state of affairs at any particular time, conjoined with the laws of nature, entails a complete description of the future; every event in nature is a logical consequence of past conditions and natural laws. Determinism is the thesis that our universe is deterministically predictable. Incompatibilism is the claim that determinism rules out our having free will. Peter Van Inwagen has captured the nub of the difficulty in a simple argument:

If determinism is true, then our acts are the consequences of the laws of nature and events in the remote past. But it is not up to us what went on before we were born, and neither is it up to us what the laws of nature are. Therefore, the consequences of these things (including our present acts) are not up to us.³

In what follows, I will exploit this argument to prove the opposite conclusion: determinism, if it is true, does <u>not</u> rule out free will. Incompatibilism is false. The problem of free will arises only if we make a controversial assumption logically independent of determinism, one that Van Inwagen (and many other incompatibilists) would deny, namely, that God does not exist. Sections I, II, and III show that if determinism is compatible with God's existence, it is compatible with free will. The theist can have determinism and free will too. Naturalists, of course, may find unconsoling the revelation that they have free will in a deterministic universe if God gives it to them. The problem

arises anew as the doctrine that <u>determinism plus naturalism</u> precludes free will. (I will call this 'naturalistic incompatibilism' to distinguish it from old fashioned incompatibilism; the problem it engenders might be called the 'naturalistic problem of free will and determinism.') Section IV extends the discussion of the first three sections to refute naturalistic incompatibilism, too.

Let me announce at the outset what I am \underline{not} going to try to do. I am not going to show that (or explain how) free will, or even human action, is compatible with indeterminism; nor am I going to attempt a general account of action and control. I am not going to solve the problem of foreknowledge. A defining characteristic of incompatibilism, as it is represented in the traditional and contemporary literature, is that determinism is supposed to rule out free will even if there are no other problems for human freedom. Consequently, incompatibilist arguments do not appeal to such problems to show that determinism precludes free will; determinism rules out free will by itself, without piggybacking on other difficulties. I will take incompatibilism on its own terms. My project, then, is to show that the fact that our acts are a logical consequence of the laws of nature and events in the remote past would not by itself provide a compelling reason to deny that we can do something else. To put it differently, incompatibilism is the claim that determinism loqically precludes free will. 4 I will show that it does not. Setting aside difficulties that do not flow from determinism, we can readily conceive of deterministic worlds in which what we do is up to us. Again, suppose that we are true 'centers of creative activity,'5 with the power to control what we do and the ability to do otherwise. Proceed doggedly on that assumption. This will not compel us to deny determinism. Neither

will it compel us to deny the conjunction of determinism and naturalism---unless we render naturalistic incompatibilism trivial.

Т

Suppose, then, that determinism is true. And suppose too that a God exists who, as Van Inwagen puts it, 'is superior to and not a part of Nature (this enormous object that the natural sciences investigate)...' God, who is immaterial, creates the natural order plus the laws governing it. Nature is the mereological sum of all the material things in the universe. By definition, a supernatural being is ungoverned by the laws of nature. Determinism is a thesis about nature: every event in nature is a consequence of the past and natural laws.

Consequently, determinism does not require that God's actions be predictable on the basis of natural laws; hence it is compatible with the existence of such a being.

If God intervenes in history, stopping the sun at Jericho, raising the dead, it may still be true that every event in nature has a cause, either natural or supernatural. But determinism is false in that case, for it is false that every event in nature is a consequence of the past and natural laws. Let us say that X performs a miracle if X is supernatural (or acts with supernatural assistance) and X violates a law of nature. It follows that there are no miracles in a deterministic universe. Nonetheless, if God exists in it, miracles are still possible. For God has the power to work miracles if he chooses and he has the power to choose, even though he never does. Such a universe is deterministic by the grace of God. Consequently, in a Godoccupied deterministic universe nothing must happen as it does.

None of this need concern the incompatibilist, of course. We

are supposing that determinism is true; it follows that there are no miracles. God lets nature run its course. Every human action is a consequence of natural laws and events in the remote past. Let us allow too that it is impossible to change the past. The question remains: Can we violate natural laws? Van Inwagen appears to take it to be a conceptual truth that we cannot. He writes: 'the laws of nature impose limits upon our abilities: they are partly determinative of what it is possible for us to do. And indeed this conclusion is hardly more than a tautology.' 10 He asserts what he calls the 'de re principle':

It is necessary that, for every person x and for every proposition y, if y is a law of nature, then x cannot render y false. 11

Van Inwagen allows that a supernatural God can falsify natural laws: 'I think the falsity of a proposition counts against its being a law of nature if and only if that falsity is due entirely to the mutual operations of natural things, and not if it is due to the action of such an "external" object on Nature.' But if human agency can falsify a proposition, it cannot be a law even if it is never falsified: 'if human beings can (have it within their power to) conduct an experiment or construct a device that would falsify a certain proposition, then that proposition is not a law of nature. A law of nature must be immune to such possible disconfirmation.' For Van Inwagen, then, a law cannot be rendered false wholly by the mutual operations of natural things.

Suppose the <u>de re</u> principle is true. What does it come to? Where y is a law, it follows plainly that nothing I do by myself can render it false. Of course, the range of my power extends to what I can do with the assistance of willing others. (If I can get by with a little help from my friends, I can get by.)

Obviously Van Inwagen also intends the <u>de re</u> principle to entail

that nothing I do with the help of other human beings can render y false. This follows from his statement that the falsity of a proposition counts against its being a law of nature if and only if that falsity is due entirely to the mutual operations of natural things. Human beings are natural things, so, if our mutual operations can falsify y, it cannot be a law.

But what if I have supernatural friends and they help me do something that renders y false? Moses, with God's help, turns his staff into a serpent to impress the Pharaoh. If the range of his power extends to what he can do with the assistance of willing others, then Moses can render laws false. The falsity of y is not due entirely to the mutual operations of natural things, so it does not count against y being a law of nature. If In a God-occupied universe we may have the power to do the physically impossible: with God's help we can work miracles. The de reprinciple should be construed as the claim that laws cannot be rendered false wholly by human agency. But this hardly entails that what we do can under no circumstances render false a law. If the power to do other requires that we can render laws false, this need not impede our freedom.

Can we deny that it is possible for human agents to work miracles with supernatural assistance? We shall have to insist that Moses does not, with God's help, turn his staff into a serpent. He merely casts it down with the intention that it become a snake. God turns it into one. Human agency can under no circumstances render false a law of nature; therefore Moses cannot turn his staff into a serpent, not even with the help of God. This defense of an unqualified de re principle strikes me as implausible and question begging. In any case, it seems undeniable that Moses can do something that has, under the circumstances in which he knows he acts, the consequence that a

law of nature is rendered false. As God is committed to completing any prodigy Moses tries, he turns the staff into a snake because Moses casts it down intending it to become one. Moses not only starts the causal sequence leading to the miracle, he determines what it will be. (Had he shouted 'Let it become a beagle!' the staff would have turned into a dog; had he thrown it over his head, the miracle would have happened behind him.) It follows that Moses can at least bring it about that a law of nature is rendered false. So even if he cannot, with God's help, turn his staff into a serpent, Moses can still bring it about that his staff turns into one. If (as I believe) this entails that he can turn his staff into a snake, the whole objection is sophistical. If not, the incompatibilist argument loses its force. For the conclusion that I cannot do other is now compatible with my having the power to bring it about that I do other, which is all that freedom requires. I have this ability only if I can bring it about that a law is rendered false; but I can accomplish that much in a God-occupied deterministic world.

I submit that, with supernatural assistance, we can render laws false. By enabling us to do this, God could give us the power to refrain from actions determined by the remote past and natural laws. 15 Of course, determinism is false if ever we exercise this power. As we have seen, there are no miracles in a deterministic universe. All that proves, though, is that in a deterministic universe we never refrain from actions determined by the remote past and natural laws. It hardly follows that we cannot refrain. As miracles are possible, such a universe need not be deterministic (just as a life-long bachelor can marry). If we can render laws false with God's help, we have the power to do other. The universe is deterministic partly because we never do. Determinism, therefore, does not logically preclude free will.

An objection: we do not have powers we can never exercise. I can exercise the power to refrain from actions determined by the past and the laws of nature only if I can want (or desire or choose or deliberate or...) other than I do. But, as the past and the laws determine what I want, I cannot want to do other. This last sentence expresses a non-sequitur, however. What follows from the past and the laws is that I $\underline{\text{will}}$ not want to do other. The stronger conclusion that I cannot want to do other requires the premiss that I cannot render those laws false. For if I have the power to render laws of nature false, the past and the laws need not determine what I want; whether they do is up to me. Consequently the objection supposes that I cannot render laws false to show that I cannot render laws false. This response is formally correct; however we will consider a far more sophisticated objection of this kind in section III--one that will compel me to elaborate my defense of compatibilism.

ΙI

My argument so far will strike some philosophers as too eccentric to merit consideration. They doubt that talk of 'miracles' makes sense. What can it mean to 'violate or suspend' a natural law? Indeed, what are laws, and how could there be exceptions to them? In this section, let me argue briefly for the respectability of miracles.

Such qualms often flow from the view that David Hume, in his essay Of Miracles, showed we could never have a good reason to believe one had happened. It would always be more likely the report was false than that a miracle had occurred. Even if we ourselves witnessed the prodigy, probably it was a natural phenomenon or we were just being tricked somehow. This is to misread Hume, however, who argues 'there may possible be

miracles, or violations of the usual course of nature, of such a kind as to admit of proof from human testimony...' Suppose a voice roars from the sky: 'I am going to give a twenty-four hour demonstration of my power! Let the dead rise! Let the speed of light double! Let cats turn into kangaroos! and so on. Straightaway these things appear to happen everywhere. Videotapes rule out world-wide mass hallucination. It would be reasonable to conclude that natural laws had been violated. Hume would agree.

Questions:

But would a law still be a law after God suspended it? Indeed, would it ever have been a law?

Response:

Yes, to both. If we conclude that God had suspended gravitational laws for a day, we should not revise our physics. It would still be reasonable to invoke them to predict events in their domain, and to explain ensuing and preceding phenomena. Whatever continues to function as a fundamental scientific explanation is a law. Science is the attempt to explain phenomena in natural terms; we revise it only when there is a better naturalistic account. Hence the judgment that a law was violated by supernatural intervention insulates it from revision.

Objection:

Van Inwagen identifies laws with propositions. Better accounts construe them as regularities or as relations between universals. As your argument trades on this peculiar view, why take it seriously?

Response:

It is simpler to talk as though L is the proposition that L, but this is theory-neutral. The debate becomes one about whether such propositions report regularities, relations between universals, or whatever. I demonstrate by abandoning the terminology

henceforth. The $\underline{\text{de re}}$ principle now goes: 'It is necessary that, for every person x and for every proposition y, if y $\underline{\text{expresses}}$ a law of nature, then x cannot render y false.'

Question:

But he allows that \underline{false} propositions can express laws. Why? $\underline{Response}$:

By definition, a miracle violates a law. Suppose a law must be expressed by a true proposition. If violating L renders it false that L, it was always false; hence L was never a law and there is no miracle. Miracles would be impossible.

Objection:

Suppose laws are natural regularities. If it is false that L, there is no regularity. So if a false proposition can express a law, you have abandoned regularity accounts. Miracles are impossible, for if there is a miracle there is no regularity, hence no miracle.

Response:

Not so. If laws are regularities, we have only to shift our definitions accordingly. Let us say that X <u>violates or suspends a law</u> just in case X renders false a proposition that otherwise would have expressed a law. 19 As before, X <u>performs a miracle</u> if X is supernatural (or acts with supernatural assistance) and violates a law.

Objection:

Suppose L is a relation between universals. If it is false that L, there is no such relation. As a miracle renders it false that L, miracles are impossible.

Response:

To the contrary, the relations-between-universals account is congenial to miracles. David Armstrong maintains that a natural law is a primitive relation of non-logical necessitation holding

between F-ness and G-ness.²⁰ It does not strictly entail that everything that is an F is a G; an interfering property such that an F which has it may not be a G is always logically possible.²¹ This certainly suggests that supernatural intervention might be such an interfering factor, which would, thereby, suspend the law. (Roughly, a miracle is a supernatural act that prevents a relation of non-logical necessitation between universals from producing a regularity.) As L does not entail the regularity, the miracle does not render it false that L; so the proposition that L stays true.²²

Question:

Suppose that in deciding what to do we can violate laws. What we do is up to us, not them. Then how can they explain what we do?

Response:

They cannot explain what we do when we violate them, of course. We are supposing determinism is true, so we never violate them. Then what we do is explained in the straightforward sense that it is subsumed under natural laws to which there are no exceptions. The laws do not compel what we do, certainly, but it is hard to see why explanation requires compulsion. There would be no need to add to our explanations the words 'and, in addition, the agent did not miraculously violate L,' for nothing miraculous would ever happen in the universe.

ΙΙΙ

So far I have tried to explain how God might give us the gift of free will in a universe that remains deterministic. My account is incomplete, however. In this section I want to complete it. Let me introduce a difficulty. Philosophers sometimes distinguish basic from nonbasic acts: 23 a nonbasic act is performed by doing another act, as when I signal you by waving

my hand. But a <u>basic</u> act is not performed by (or through) another act: I <u>just</u> wave my hand. The distinction has its critics;²⁴ but I err steeply on the side of the impending difficulty and assume it is real, exhaustive, and that our nonbasic acts are free only if our basic acts are free. If Moses parts the Red Sea by wiggling his finger, then, if he cannot do other than wiggle his finger, he cannot refrain from parting the sea.²⁵ As the distinction is exhaustive, nothing we do is free if our basic acts are unfree.

Earlier I said that an act A is a miracle (or miraculous) if and only if A is physically impossible, that is, if and only if the past and natural laws entail not-A;²⁶ we might capture this by saying that a miracle must <u>ipso facto</u> violate a law. On the face of it, Moses throwing his staff on the ground is not a miracle.²⁷ The basic act causes a sequence of events, one of which is God's act, that violates a law. Hence a nonmiracle might have as a causal consequence that a law is violated; in <u>this</u> way the nonmiracle violates a natural law, but, as the laws entail that it happens, it does not do so <u>ipso facto</u>.²⁸ Moses, with God's help, turns his staff into a serpent, a nonbasic miracle, by the basic act of casting it down: a miracle can be worked by doing a nonmiracle.²⁹

The difficulty is that on the model of miracles we have employed so far (call it the 'accomplice' model), only Moses' nonbasic acts can be miracles. The accomplice model omits basic acts because there is no room in one for an accomplice; my basic acts are 'saturated with my own agency,' we might say. If Moses does the basic act there is nothing left for God to do, and vice versa. When Moses parts the sea, God's help arrives only as a causal consequence of the finger wiggling, too late to enable Moses to refrain from wiggling his finger. Hence Moses' power to work nonbasic miracles provides no reason to say that he can,

with divine assistance, perform basic miracles. The incompatibilist argument, therefore, still applies full force to basic acts. It need only be modified:

If determinism is true, then our basic acts are the consequences of the laws of nature and events in the remote past. But when we perform a basic act we cannot ipso-facto violate a natural law, nor can we change the past. If we can do neither, we cannot refrain from doing the basic act. Therefore, our basic acts are not up to us.

The incompatibilist can now consistently allow that we can work miracles; only they will not be free acts. As Moses cannot refrain from finger wiggling, he cannot do other than violate a law. As his power to work miracles does not extend to basic acts, nothing he does is up to him--including the miracles!

To give us the gift of free will in a deterministic universe God must enable us to perform basic acts that ipso-facto violate natural laws. How might he do it? I wrote earlier:

Let us say that X $\underline{\text{performs a miracle}}$ if X is supernatural (or acts with supernatural assistance) and X violates a law of nature.

Here are two relevant models of assistance: First, suppose I am about to be attacked by a tiger. At my request and direction, you shoot the tiger in the left forepaw with a tranquilizer gun.

Second, you throw me the gun so that I can shoot the tiger myself. In the first case you add your agency to mine; I do my part which causes you to do yours. In the second case you do not add your agency to mine; instead, you lend me the power you wield so that I by myself can tranquilize the tiger.

To enable us to perform basic miracles, God must give us assistance of the second kind. He must give us miraculous (or supernatural) powers. That is, he must give certain physical systems intrinsic powers and capacities in excess of what the physics of the universe provides them: he must share with us some of his own supernatural power. God's power has no naturalistic explanation, plainly; it is, I submit, conceivable that God might

give a physical thing an intrinsic power that has no naturalistic explanation. Moses (as represented in the Torah) can work miracles, but only by the continuing intervention of a supernatural accomplice; hence he has no miraculous powers, as I mean them. By contrast, you and I would be able to perform basic miracles without an accomplice (who would be useless anyway). To give us free will in a deterministic universe, God would give us the enduring ability to refrain from basic acts determined by the past and the laws of nature; he would share with us a godlike power, the ability to spontaneously violate natural laws.

Of course, determinism is false if ever we use it; by hypothesis, we do not use it but, as we have seen, we still can. The universe is deterministic partly because we never do. It might be objected, though, that God, in giving us miraculous powers, has already violated natural laws. A logical consequence of the laws, after all, is that we have no such powers. Can a deterministic universe really contain natural objects with supernatural powers? 30 I believe so. As we never exercise them, every event in nature is a logical consequence of the past and natural laws. Our definition of determinism is satisfied. The laws determine what we do; they also determine what we do not do. What really follows from the laws is not that we lack miraculous powers, but that there are certain things it is physically impossible for us to do--we can do them $\underline{only if}$ we can violate natural laws. Also, it follows that we never do them. All of this can stay true if God gives us miraculous powers. Hence determinism is compatible with God-given supernatural powers we never use.

But what about the <u>de re</u> principle? When a human agent works a miracle without a supernatural accomplice a law of nature is rendered false wholly by the interactions of natural things,

which, according to the principle, is impossible. Consequently it precludes basic miracles. Or does it? Accomplice miracles are compatible with the <u>de re</u> principle, we saw, because the law is rendered false partly by the supernatural power of an 'external' agent. What matters, surely, is not whether the agent is internal or external to nature, but whether it violates the law by natural or supernatural means. If a law is rendered false by supernatural powers, there is no better naturalistic explanation of the phenomena in its domain; it still functions in science as a fundamental naturalistic explanation. This is so whoever wields the powers. The truth at the core of the <u>de re</u> principle, if there is one, is this:

It is necessary that, for any agent x you please and for every proposition y, if y expresses a law of nature, then x cannot render y false wholly by natural means.

This does not preclude our working basic miracles.

But if human agents have 'supernatural' powers, what could that really mean? If some powers are supernatural because they are a gift from God, then all are supernatural--including the power to walk. All powers come from God. If, on the other hand, some God-given powers are natural, why deny that the power to spontaneously violate natural laws is one of them? In virtue of what would it not be natural? Part of the answer resides in the claim that the power has no 'naturalistic' explanation. Knowing all there is to know about the features of the universe to which the natural sciences advert in their explanations would not explain why we have it; indeed, no continuation of any science, including psychology or sociology, could account for it. In addition, the power is 'emergent'--it arises at a certain point in the developing organization of whatever composes the universe. Nonetheless God (in his wisdom) distributes it in a nomological way, so that it is predictable. He gives it to all and only those with human brains, or to the brown-eyed, or to those of us conceived a certain temporal distance or more from the Big Bang. But it is not entailed by, or accountable in terms of, the features upon which it supervenes; God does not realize it through nature. The universe could have been the same in every respect except that nothing had it.

Why should that matter? Naturalism repudiates the view that there exist entities or events which lie beyond the scope of scientific explanation; 31 but it is consistent with the prospect that explanation will come to an end in basic laws and properties that cannot themselves be explained. If all nonemergent properties are explainable scientifically, the universe must be infinitely explainable. So naturalism, construed charitably, allows the possibility of unexplainable nonemergent properties. If all emergent properties were scientifically explainable, however, the universe would not have to be infinitely explainable; unexplainable emergent properties are therefore more problematic. (In effect, naturalism maintains there is a scientific explanation for whatever needs one.) In addition, unexplainable emergent powers to causally affect the material realm are still more problematic, for the features of reality we are most concerned to account for scientifically are those which can change significantly the course of nature.

An example may help to illustrate what I have in mind. Suppose we live in a deterministic world composed of indivisible material atoms and their conglomerates, plus God, who gives the atoms their powers. The laws of nature are a sort of compendium or record of the causal powers of the atoms, which account for the powers of the conglomerates. Solidity and liquidity, for instance, are merely 'organizational features of matter,' nothing more than atoms being arranged in a certain way. 32 Solidity

emerges at a certain point in the evolving complexity of matter; but it is explainable--a conglomerate of atoms so arranged must be solid, given the powers of its constituents. There is one exception, however. God supplies to all and only conglomerates of a certain kind (us, of course) the power to do other than what the laws and the past determine they will do--though we never use it, in fact. 33 And he gives us this power qua conglomerates, without altering in any way the powers of our atoms, so that it is in excess of what the physics of the universe provides us. As it does not depend upon their powers, it has no naturalistic explanation--any more than God's power over atoms does. We have it because he shares with us a fragment of his own supernatural power. As I argued above, he does not violate natural laws by giving it to us. In short, the power is nonnatural because it is an emergent capacity to affect material things that is explained wholly by the agency of a supernatural being, not by nature.

My description of this example is tendentious, however. Given the <u>de re</u> principle, <u>either</u> our power to do other is supernatural <u>or</u> the universe is indeterministic. Why not say that God has given us free will by making a universe in which atoms in human configurations lose their causal powers? The apparent 'laws of nature' break down therein. Remember, however, that our universe is one in which we never exercise the power; so it will be indeterministic <u>even though</u> every atom in it behaves in a perfectly law-like way throughout eternity. Note, too, that the propositions expressing those apparent laws warrant counterfactuals, on leading accounts. An 'indeterministic' universe that so closely mimics a deterministic one is an anomaly begging for redescription. In addition, if we describe our universe as indeterministic, there is no naturalistic explanation for <u>why</u> the atoms lose their powers when so configured. Human

behaviour is unexplainable, too, despite all appearances to the contrary. But if we allow that God has given us a supernatural ability, there is no loss of powers to be explained, and our behaviour is accounted for by the laws of nature—as I argued in II. (Indeed, they explain why we never use the ability, as I will argue in IV.) On the face of things, we ought to describe our apparently explainable universe so that explanation is maximized; not so that what looks explained is unexplainable. That way science flourishes. The principal cost of counting our power as supernatural is that there is no naturalistic explanation for why we have it—not a serious disadvantage, as it is never used. The refusal to so describe it, despite all the advantages, suggests a decision to call 'indeterministic' any universe in which we can do other—which would render incompatibilism trivial.

Some might object that a power is natural if it supervenes on the physical--but consider. Suppose God gives the power to solve five million mathematical equations a second for five minutes to anyone standing at a particular point on the Earth's surface at the coming millennium, without changing that person's other properties. That would be a supernatural power, surely. Note, though, that it supervenes on the physical. All and only human creatures in a certain location at a certain time have it. 35 The power is nonnatural, not because it fails to supervene on the physical, but because it does not supervene on features of nature--physical or nonphysical--that can explain it. So the fact that the power to do other supervenes on the physical does not make it natural, either; by hypothesis, it too supervenes on features of nature that cannot explain it. There is, I submit, no principled difference between it and the power to do five million calculations a second; if one is supernatural, so is the other. Of course, the latter power alone supervenes on features the

specification of which involves essential reference to particulars: one must be at a certain place at a certain time. But once it is clear that neither set of features explains its supervening power, which is accounted for wholly by the agency of a supernatural being, this cannot make the difference between a supernatural and a natural ability. Suppose God foreordains that all and only albino women, 45 or older, who weigh over 300 pounds will be able to levitate at will. Is that a natural power?

Of course, words like 'natural' and 'nature' are notoriously unclear, and we might insist that a power is natural if it is exercised by something other than a supernatural being. This is implausible: is the power to solve five million mathematical equations per second a natural power? And if we say it is, the de re principle becomes untenable--for if I get the power for five minutes but I never use it, the fact that I could have rendered various principles of psychology false would hardly prove they did not express natural laws. (Note, too, that this example refutes the principle that a proposition expressing a law cannot be rendered false 'entirely by the mutual interactions of natural things.') The incompatibilist is faced with a trilemma: if we insist that powers which I call 'nonnatural' are natural, the claim that we cannot violate laws by natural means is untenable. Incompatibilism collapses. If, on the other hand, we allow the possibility that we have nonnatural powers, the de re principle no longer excludes the ability to do other in a deterministic world. Finally, if we admit that talk of 'natural' powers, laws, and beings is really just mush, then both renditions of the \underline{de} re principle are too vague to evaluate; indeed, there is no fact of the matter. The 'natural/nonnatural' distinction I have just drawn is principled, it respects incompatibilist intuitions, and it stops incompatibilism from turning to mush. Incompatibilism is

meaningless or it is false.

To sum up: Determinism does not preclude human freedom. If it is compatible with God's existence, determinism is compatible with free will. 36

ΤV

Now let me address the doctrine that determinism plus naturalism logically precludes free will--what I earlier called 'naturalistic incompatibilism.' To begin, I observe that we sometimes intelligently compare incompatible theories even though we know that one is necessarily false if the other is true. Either Goldbach's Conjecture or its denial is necessarily true; still we can consider the consequences for mathematics of its being true and of its being false. When we do this we consider incompatible situations -- how things would be if the Conjecture were true versus how they would be if it were false--even though one of them is impossible (there is no possible world in which it obtains) if the other is actual. 37 The chief way we compare competing situations, of course, is to consider the differences between them. A difference is <u>fundamental</u> if it cannot be explained by other differences. Generally, non-fundamental differences exist in virtue of fundamental ones; consequently a difference in how we describe situations must be warranted by the fundamental differences between them. Otherwise it is unmotivated. For instance, suppose the universe is indeterministic and the Conjecture true: if per impossibile it had been false, that fundamental difference would not have made the universe deterministic. 38

Let X be a deterministic world of the sort described in III, where the unused emergent power to do other is explained wholly by the agency of a supernatural being, not by nature. Naturalism

is false of X. (One change: it will simplify what follows to suppose that this is God's <u>only</u> involvement in nature, which he did not create.) Let Y be a world in which there is one fundamental difference from X: God does not exist. But everything else logically consistent with that difference is held constant. That is, anything in X such that there is a possible world in which it, but not God, exists, also exists in Y, and all these things are arranged temporally and spatially as they are in X. X and Y have the same history, for example, so both worlds are completely predictable in virtue of the past and the laws of X. In Y, too, we have the capacity to do other and we never use it; for even though the power in X is explained by God's agency, it could exist in a world without God.

How shall we describe Y? On the face of things, it is deterministic. Each particular natural event in X is in Y, and vice versa (we might say that Y is 'event isomorphic' with X). As the supernatural power in X is never used, in neither X nor Y is any event in nature affected by the supernatural. In both worlds, nature takes its course. The chief causal difference between them is that there is less supernatural intervention in Y. Not only is Y event isomorphic with a deterministic world, there can be no causal intervention from outside the natural realm. The fundamental difference between X and Y--God is only in X--does not motivate the difference between determinism and indeterminism. One cannot make a deterministic situation indeterministic by holding the course of nature constant and subtracting a supernatural element. That difference does not warrant the difference in description. The propositions expressing laws in X are true in Y as well, and they warrant counterfactuals in Y, on leading accounts. 39 It is paradoxical to deny that what can be explained in X can also be explained in Y.

Subtracting God from X does not turn explanations into non-explanations or laws into non-laws. As Y is a naturalistic deterministic world in which we can do other, naturalistic incompatibilism is false.

How might the incompatibilist respond? The fundamental difference between X and Y certainly makes this difference: the power to do other is natural in Y, but supernatural in X. Given the de re principle, the law-like propositions in Y do not express natural laws, for they can be rendered false by wholly natural means. So Y is indeterministic after all. This response is fallacious, however. The argument above concludes that Y is a naturalistic deterministic world in which we have the power to do other. It follows that laws do not necessarily impose limits on natural human abilities. Typically they do, in fact, but there can be exceptions. (Van Inwagen, remember, takes it to be 'hardly more than a tautology' that laws impose such limits--yet it seems implausible that all this is packed into the concept of a 'law of nature.') As the argument is ultimately directed against the de re principle, invoking it against the argument begs the question.

Suppose we affirm the <u>de re</u> principle anyhow. The fact that God is not in Y cannot plausibly make what is explainable in X unexplainable in Y, surely. If we insist that X but not Y is deterministic, then determinism becomes a technicality, and what concerned us about determinism—the metaphysical tension between predictability by way of scientific explanation, on the one hand, and free will, on the other—gets detached from determinism. That conflict is equally stark in both X and Y. As determinism is not required for the presence of what concerns us about determinism, the naturalistic free will problem is solved whether or not we call Y 'deterministic'; for in Y predictability is maximal, scientific explanation is at least as strong as it is in X, a

deterministic world, Y is naturalistic, and we are free.

Let us consider Y more closely, however. What explains our power to do other in Y? It does not flow from God, obviously. Naturalism, I said earlier, maintains there is a scientific explanation for whatever needs one. As an emergent causal power certainly needs an explanation, if naturalism is true, then questions about why and when it arises must have a scientific answer. It cannot be a 'nomological dangler,' an emergent property that is unexplainable by the features of the universe upon which it supervenes. In X the power to do other supervenes on features of nature that do not explain it. It flows from God, not from nature. Consequently, if naturalism is true of Y, it must differ from X in another fundamental respect: in Y, the power is explained by those same features. They enable us to account for why it arises when they do. It flows from nature, not from God. Obviously one of these situations is impossible (the features explain the power in every world in which they obtain if they explain it in any) but, as I observed earlier, we can reason intelligently and profitably about competing situations, one of which is impossible if the other obtains. The fact that God exists in X, not in Y, does not make the difference between determinism and indeterminism. Indeed, it seems idle. Setting it aside, then, does this second difference warrant describing Y as indeterministic?

If the fundamental difference between competing situations is that something scientifically unexplainable in one can be explained in the other, then whatever can be explained in the former can be explained in the latter—and then some. It follows that the law-like generalizations expressing laws in X also express laws in Y. Once again, the difference between X and Y cannot make Y indeterministic. We cannot make a deterministic

situation indeterministic merely by explaining something more about it. Both X and Y are equally predictable; the laws in X, which, combined with the past determine a unique future, also determine the future of Y--only in Y the correlation between brain features, say, and the power to do other, can be explained. Y is not at all like a quantum mechanical universe, where the future is unpredictable in principle. The fact that in Y the power to do other is explainable gives us more reason to say that Y is deterministic, not less. It follows that Y is a naturalistic deterministic world in which what we do is up to us.

How might the incompatibilist respond? As an impossible situation can be a member of a pair of competing situations, the argument merely assumes at the outset that Y is possible. The incompatibilist might object that a robust power to do other cannot be completely naturalized. Perhaps this would require its reduction to the powers and interactions of brain microparticles, and that would eliminate human agents as true 'centers of creative activity,' with the power to control what they do. The objection backfires, however. For if it is successful, naturalism by itself rules out free will; determinism has nothing to do with it. As a defining feature of any incompatibilism is that determinism must play a role in precluding free will, naturalistic incompatibilism would be false.

Out of charity for incompatibilism, then, let us suppose that Y is possible. Is there something incoherent about the conclusion that it is deterministic? Can a power violate the laws that explain its own existence? There is a <u>body</u> of laws in Y, however; some account for the power to do other, others explain what we do. So the power, if exercised, would not violate the laws that explain its existence. But what explains my never exercising the power? Note that it is the nature of the power

that it is never used; in every world in which I can do other, I do what I do, anyway. 40 Consequently I never use the power because, in each case, I do what I do. By explaining what I do in each case, the laws explain why I never exercise the power. As I argued in II, they explain what I do in the straightforward sense that they subsume what I do under natural laws to which there are no exceptions. In short, the natural laws in Y collectively explain my ability to do other than they predict, and that I will never use it. But is it logically possible to do, by natural means, what is physically impossible? 'Physically impossible' just means 'what would render false a proposition expressing a law.' In Y I can do, by natural means, what would render such a proposition false. Unless we make question-begging assumptions, this is not incoherent.

If we insist that Y is indeterministic, even though the past and the laws determine a unique future, then, once again, what threatens us about determinism becomes detached from determinism. For X and Y are equally predictable, and more can be explained in Y than in X--a deterministic world. If we insist that the lawlike generalizations in Y do not express laws, then what matters about natural laws--explanatory and predictive power--becomes detached from natural laws. If we hold to the $\underline{de\ re}$ principle at all costs, we have decided to call a predictable naturalistic universe 'deterministic' only if the human agents in it cannot do other. Such situations are 'deterministic' because we cannot do other, not vice versa; Y is 'indeterministic' because we can do other, not the other way around. Naturalistic incompatibilism is trivially true. As determinism is not required for the presence of what concerns us about determinism, the naturalistic problem of free will and determinism is solved whether or not we call ${\tt Y}$ 'deterministic.' For in Y predictability is maximal, explanation

is stronger than it is in some deterministic worlds, Y is naturalistic, and we are free.

To conclude: Given any account of the 'natural/nonnatural' distinction that does not pull the rug from under the <u>de re</u> principle, there are nonnatural deterministic worlds in which we are free that so closely resemble worlds where the power to do other is natural, that it is paradoxical to deny the latter are deterministic, too. The fundamental differences between the situations cannot make the difference between determinism and indeterminism. If we stick to our guns, insisting the naturalistic worlds are indeterministic because the <u>de re</u> principle is true, then 'determinism' becomes a technicality depending upon our not being able to do other, incompatibilism is trivial, and what concerns us gets detached from determinism. If determinism matters, then naturalistic incompatibilism is false; otherwise, it is uninteresting. Either way, determinism poses no problem for free will.⁴¹

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Footnotes

- 1. See Feinberg, Lavine, Albert 1992, p. 610.
- 2. This second clause entails that a deterministically predictable universe has no beginning. If we wish to avoid that consequence, we can say that every event in nature which is preceded by another event in nature is a consequence of the past and natural laws. For the sake of brevity, I will call a deterministically predictable universe a 'deterministic universe.' My definition of 'deterministically predictable'

closely follows Peter Van Inwagen's definition of 'determinism':

For every instant of time, there is a proposition that expresses the state of the world at that instant;

If p and q are any propositions that express the state of the world at some instants, then the conjunction of p with the laws of nature entails q. (Van Inwagen 1983, p. 65)

Van Inwagen maintains that laws are propositions. (p. 4) The force of determinism, then, is that where p and q express the state of the world at some instants, there is no possible world where p and the laws are true but q is false. Van Inwagen's account of determinism entails that the future determines the past, but nothing will hang on this.

- 3. Van Inwagen 1983, p. 16. He goes on to present three formal renditions of this argument. This paper does not explicitly address these formalizations; however my objections, if correct, apply to them, too. All are unsound if the same controversial assumption is false.
- 4. Roughly and intuitively, I want to say that p 'logically precludes' q just in case q must be false if p is true, q is false because p is true, and the falsity of q when p can be explained wholly by what can be inferred from p. That the Earth is spherical does not logically preclude that 2+2=5.
- 5. The apt phrase comes from Plantinga 1974, p. 171.
- 6. Van Inwagen 1983, p. 14.
- 7. Consequently the claim that every event in nature has a cause does not entail determinism.

- 8. Note that this definition leaves open the possibility that a human agent could, with supernatural assistance, perform a miracle. There may be arguments for the conclusion that human agents can under no circumstances work miracles, not even with God's help--we shall consider one later--however it is reasonable not to beg that question from the first by defining 'miracle' so that 'x is a miracle' trivially entails 'x was performed solely by a supernatural agent.' Note too that a miracle must be physically impossible: an act A is physically impossible if and only if the past and natural laws entail not-A.
- 9. Note that the <u>possibility</u> that God perform a miracle is compatible with determinism. Suppose determinism is true: where p and q are any propositions expressing the state of the world at different instants, p conjoined with the laws of nature (L1, L2,...) entails q (see note 2). For Van Inwagen, laws are propositions. The force of 'entails' is that there is no possible world at which p plus the laws are true but q is false. Now suppose that God can perform miracles but never does. Determinism stays true: for any propositions p and q which express the state of the world at different instants, there is no world at which p plus L1, L2,...are true but q is false. The possibility that God perform a miracle does not <u>intrude</u> into the logical relation between p, the laws, and q. So it is compatible with determinism.

Suppose God did work a miracle. Determinism would be false. At least one law would be false, too. For Van Inwagen, it would still be a law:

[I]f God created <u>ex nihilo</u> a spinning object, then the proposition we call 'the law of the conservation of angular momentum' would be false. Yet, it seems to me, it might be a law of nature for all that. (Van Inwagen 1983, p. 14.)

What the possibility of miracles $\underline{\text{does}}$ show, therefore, is that there are worlds with the same past and laws as ours, but a

different future; each contains at least one false law, however. There is only one future in the worlds with our past where the laws are all true, and every event in nature is a logical consequence of the past and the laws. Such worlds are deterministic.

- 10. Van Inwagen 1983, p.62.
- 11. Van Inwagen 1983, p. 63.
- 12. Van Inwagen, 1983, p. 4. Also, see note 9.
- 13. Van Inwagen 1983, p. 62.
- 14. If the fact that Moses, with God's help, renders y false does not count against y being a law of nature, then the fact that Moses, with God's help, can render y false does not count against y being a law of nature. Moses having the power to do what would not count against y being a natural law does not itself count against y being a natural law. For Van Inwagen, a natural law is immune from only those 'possible disconfirmations' that would count against its being a natural law.
- 15. An act is voluntary when the agent knows what he is doing and is not compelled to do it. (See Aristotle, Nicomachean Ethics, Book III, Chapter I.) Roughly, an act is compelled when the agent acts against his will, or when what caused the desire to act would have brought about that desire, and, through it, the act, even if the agent had learned the act was grossly imprudent or irrational (for example, when the desire is produced by posthypnotic suggestion or extreme thirst). Voluntary action is

compatible with determinism <u>even if</u> determinism logically precludes the power to do other. To make us centers of creative activity, God would need to insure that when we act voluntarily we have the power to do something else.

- 16. Hume 1966, pp. 120-145. Hume defines a miracle as a 'transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent.' He adds: 'A miracle may either by discoverable by men or not. This alters not its nature and essence.' Hume 1966, p. 127.
- 17. Hume 1966, p. 141. The sentence continues: 'though, perhaps, it will be impossible to find any such in all the records of history.' Hume's concern was the small-scale local miracle that is often invoked to prove one religion against another, for example, that Jesus raised the dead. To such reports he would reply that 'the knavery and folly of men are such common phenomena, that I should rather believe the most extraordinary events to arise from their concurrence, than admit of so signal a violation of the laws of nature.' Hume 1966, p. 142.
- 18. See Hume 1966, p. 141.
- 19. This is not quite right; for supposing there had already been a miracle of the same type, the counterfactual would be false.

 One wants to allow the possibility of several miracles of the same kind; if Jesus twice walked on water, the second excursion would be a miracle, too. The short way with this is to say that X performs a miracle if X performs a supernatural act (that is, an act performed by a supernatural agent or with the assistance of one) such that, at the closest possible world where there are no

supernatural acts there exists a law L that does not exist in A (the actual world), and L does not exist at the closest world where X's act is the only supernatural act.

- 20. Armstrong 1983, p. 85.
- 21. Armstrong 1983, pp. 147-150.

22. Earlier I wrote:

Let us say that a universe is <u>deterministically predictable</u> if a complete description of the state of affairs at any particular time, conjoined with all the laws of nature, entails a complete description of the future.

If miracles do not render false the propositions that express laws, then, if God is possible, there are no deterministic universes. If we believe that laws are relations between universals, we should say that a universe is 'deterministically predictable' if a complete description of the state of affairs at any particular time, conjoined with all the propositions expressing laws <u>plus</u> the claim that there are no miracles, entails a complete account of the future.

- 23. See Arthur Danto, <u>Analytical Philosophy of Action</u> (Cambridge: Cambridge University Press, 1973), p. 28.
- 24. See Annette Baier, "The Search for Basic Actions," American Philosophical Quarterly. 8 (1971), 161-170, and "Ways and Means," Canadian Journal of Philosophy, 1 (1972), 275-293. Also, see Judith Jarvis Thomson, Acts and Other Events (Cornell University Press: 1977), 168-174.

- 25. Here I skate past a difficulty. Suppose our basic acts are not up to us but the complex intentions with which we do them are (a complex intention is the intention to do act A by doing act B). Then Moses cannot help but throw down his staff, but he can intend that it become a beagle, not a snake. God reads his mind. Hence Moses must throw down his staff, but he can refrain from turning it into a snake. Therefore, the proposition that our basic acts are not up to us may not entail that our nonbasic acts are not up to us. The inference may require the additional claim that our complex intentions are not up to us--unless, for example, forming an intention is a basic act. These issues are beyond the scope of this paper. In any case, my critic needs only the thesis that we are profoundly unfree if we cannot refrain from our basic actions, which is undeniable. Further, most mental acts are basic. A world in which we can control our complex intentions but not our basic actions sounds perfectly monstrous, even supposing it is thinkable.
- 26. See footnote 8. To avoid paradox let me stipulate that in evaluating whether A is physically impossible, A cannot be described as 'an act that has certain causal consequences' (e.g. 'doing something that causes a death'). Otherwise if the past and the laws entail both that Moses throws down his staff and that he does nothing that causes a law to be violated, then A would and would not be physically impossible. On the other hand, an act can be described as 'causing a death' or 'turning a staff into a snake.' This may seem paradoxical. Donald Davidson writes: 'Doing something that causes a death is identical with causing a death.' Davidson 1980, p. 58. However as we cause a death by doing something that causes a death, the descriptions must denote different acts if the 'basic/nonbasic' distinction is real--as I

am supposing. Similarly 'causing the staff to turn into a snake' does not denote throwing down the staff. The latter is basic, but causing the staff to turn into a snake is nonbasic.

(Interestingly, Davidson makes the above claim in arguing that the distinction is not real; see footnote 29 below.)

- 27. Without further ado, I take this to be an instance of a basic act.
- 28. The laws also entail that the nonmiracle does not cause anything to turn into a snake.
- 29. I am supposing the 'basic/nonbasic' distinction is 'real,' by which I mean that it is not intensional but marks two separate classes of actions. By contrast, Donald Davidson would argue that my waving my hand is identical to my signaling you: under the former description the act is basic, under the latter nonbasic, but both denote the basic act. Beyond basic acts 'there are no further actions, only further descriptions.' (Davidson 1980, p. 61) He writes: 'We never do more than move our bodies: the rest is up to nature.' (Davidson 1980, p. 59) The chief difficulty he cites for the view that basic and nonbasic actions are numerically distinct depends on the assumption that if they are distinct, basic acts must cause nonbasic ones--which is implausible. Let me suggest, though, that if they are distinct, the relation of the nonbasic to the basic act is like that of the statue to the lump of bronze, what is sometimes called 'constitution.' My signaling you has the feature that you are signaled in every world in which I do it, my hand waving does not; as the acts have different modal properties, they are distinct. Nonetheless when I signal by waving, my signaling is

nothing more than my waving. Happily we need not settle these matters here. For suppose Davidson is right: all our acts are mere bodily movements. To make us free God must give us the power to do different movements. He cannot do this by intervening as a consequence of the movements. This is all I need.

- 30. Is something with a supernatural power still a natural object? If it is made of matter and its behaviour is completely determined by natural laws, it is squarely a part of nature.
- 31. This roughly paraphrases a sentence in an encyclopedia article by Arthur C. Danto (see Danto 1967). I am supposing something in this discussion that I believe is reasonable: in trying to draw a principled distinction between the natural and the nonnatural, it is helpful to consider what is problematic for scientific naturalism.
- 32. The phrase 'organizational features of matter' is from Churchland 1990.
- 33. It is an additional, but primitive, law of nature that things like us, when they act voluntarily, have the ability to make their atoms go in alternative ways (see footnote 15). Note that this law supports counterfactuals; if there had been more things whose atoms were configured as ours are, they would have had that ability, too.
- 34. On the Lewis-Stalnaker account of counterfactuals, 'If p had been true, then q would have been true' means 'q is true at the worlds most similar to ours at which p is true' (or 'q is true at the closest possible p-worlds'). Worlds in which the atoms are

now in different positions from those they occupy in our world (call it 'O') will most closely resemble O if the atoms behave in the same law-like ways they do in O and, further, we do nothing to interrupt that (just as in O). Consequently the atoms will act as the apparent laws predict. Another account: J. L. Mackie argues that induction warrants counterfactuals—if we have inductive evidence that Bs always follow As, then on the supposition that e is an A it is inductively probable that e is followed by a B. See Mackie 1966. So our evidence for the apparent laws in O warrants counterfactuals too. Both possible and unobserved instances stand in the same relation to the laws.

35. If I am standing at that place, I have the power. If someone else had been standing there, she would have had it.

36. This is tendentious, arguably. There may be arguments other than Van Inwagen's which prove that free will and determinism are incompatible even if a human being can work miracles. But my conclusion is hardly gratuitous: if we can have the power to do other than what the laws and the past entail, then, on the face of things, the fact that what we do is a consequence of the past and the laws does not <u>logically preclude</u> our being able to do something else. How could it? The challenge to those who think it could is to produce those arguments. A suggestion: let us say that possible worlds x and y are nomologically congruent iff (p) (p is a law in x iff p is a law in y). Note that x and y are congruent even if the same laws have different truth values in them, due to miracles. We define 'determinism': A (the actual world) is the only world which is both congruent with A and in which things are at some instant exactly as they are in A. Now there certainly are other worlds congruent with A in which things are at some instant as they are in A, <u>if</u> there are miracles in them; so determinism now excludes the possibility of miracles.

'Determinism' is misdefined, however. An atheist who allows there <u>might</u> have been a miracle-working deity (so that there are other worlds congruent with A with the same past as A), must conclude that determinism is necessarily false--for if it is true that things might have been that way, it is necessarily true.

'Indeterminism' is now consistent with the claim that every event is a consequence of the past and natural laws.

- 37. Would an explanation of this ability require a commitment to impossibilia? Kripke has argued that in at least some of these cases we are misdescribing possible worlds. My own view is that, as 'Sally is thinking about x' does not entail 'There exists an x that Sally is thinking about,' ontological questions do not arise. Such issues are beyond the scope of this paper, plainly. Comparing situations, one of which is impossible if the other is actual, is something we do intelligently and profitably; a constraint on an adequate metaphysics is that it will accommodate that fact.
- 38. It is sometimes said that any conditional with an impossible antecedent is trivially true. Note, however, that we often reason cogently from impossible antecedents in reductios. 'If time travel were possible, then I could go back and shoot myself as a child, in which case I would and would not shoot myself.'

 Supposing this is a good argument, it demonstrates the impossibility of the antecedent—but the counterfactual is hardly trivial. (Again, the conditional 'If, for any things a₁....a_n, there is a set that contains them, sets are things, and they can include themselves, then there is a set of all sets that do not

include themselves' is not vacuous.) In fact, we <u>do</u> intelligently debate the truth of counterfactuals with impossible antecedents, e.g. 'If (allowing the impossible) Alice were now competent and aware that she is irreversibly comatose, profoundly brain damaged, and that she has been so without any change for a decade, she would want her feeding tube withdrawn.' 'Not so' you respond: 'She often said God wants us to live as long as we can.' If a theory of counterfactuals cannot account for this, so much the worse for it.

- 39. Along the lines that I suggested earlier: see footnote 34.
- 40. The power is the ability to make actual a world in which I do something else, one in which I do not exercise the power.
- 41. Thanks to Michael Burke, Keith Butler, Ed Johnson, Kathrin Koslicki, Gerald Nosich, Alan Sussman and <u>Philosophical Studies</u> for helpful comments. Special thanks to Judith Crane.