

'AND THIS ALL MEN CALL GOD'

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Philosophical discussion of theistic arguments mainly focus on their first (existence) stage, which argues for the existence of something having some very general, if suggestive, feature. I shall instead consider only the second (identification) stage of one such argument, the cosmological argument from contingency. Taking for granted the existence of an absolutely necessary being, I develop an extended line of argument that supports the more nearly theistic claim that such a being is a transcendent, personal cause of our contingent universe.

Some traditional theistic arguments involve two broad stages. In the existence stage, one argues for the existence of something thinly identified (intelligent designer, unmoved mover, necessary being). In the identification stage, one argues for a thicker identification of the explanans as something at least approximating the concept of God, conceived as a perfect, personal, and transcendent source of everything else. Ever since Hume and Kant, the would-be demolishers of such arguments, most of the action has centered on the first stage, even among those whose positive conclusions warrant a consideration of the second stage. I will comment only briefly on the first stage and instead develop the identification stage of one such argument, the cosmological argument from contingency.

According to the version of the argument that most interests me, the existence of the universe is and can only be explainable in terms of necessary being, a being that exists of absolute necessity.¹ The sole comment I will make on this concerns one reason some philosophers dismiss the sort of reasoning involved. According to them, conceivability, suitably understood, is a rough and ready guide to metaphysical possibility. But we can easily conceive the nonexistence of necessary being. So its non-existence is presumptively possible—which of course implies that its existence is *not* possible. If we are given pause by the fact that parallel reasoning that begins with the presumptive possibility of necessary being establishes the opposite conclusion, the case is nonetheless settled by the fact that accepting the existence of necessary being at the fount of all existence precludes boatloads of *prima facie* possibilities.²

My comment here is just to note that there is a attractive alternative picture of the epistemology of modality which will not support this summary dismissal of the cosmological argument. According to it, claims con-



cerning the metaphysical modality are often justified in part for their *explanatory* power (analogous to highly theoretical scientific claims), and explanation often involves necessary connections. Consequently, it is often easier to establish a *necessity* claim than a (simple) possibility claim, as the scope of possibility is what remains viable when all the explanatory necessities have been uncovered.

There is a case for thinking that this view fits better with a common theme since Kripke, viz., that one cannot rest at the superficial level of pretheoretical concepts in order to establish a genuine possibility (though that will suffice in some cases to establish a genuine, though trivial, *necessity*). One must 'see the proposed scenario through,' which requires grasping the natures of the entities involved and taking due notice of relations of inclusion and exclusion among them. (How thorough a grasp on the natures is required will depend on the possibility claim involved.) The defender of the cosmological argument from contingency suggests, in effect, that the fact of existence itself forces us to recognize a further level to this procedure of seeing a putative unactualized possibility through, viz., seeing through to the ground of its possibility in necessary being.³ We can put the point more pictorially by thinking of absolute possibility in terms of *concentric* spheres connoting increasing constraints: with formally consistent descriptions (at the outermost), then descriptions also consistent with the natures of the hypothesized entities, considered in and of themselves, and finally, full metaphysical possibility at the core, which further requires a basis for putative possibilities in the nature of necessary being. What a philosopher is able to grasp in suitably constrained 'modal thought experiments' are second-sphere 'possibilities,' concerning contingent natures in and of themselves, abstracted from the ground of their possibility (or lack thereof). There can be reliable reasoning concerning such 'possibilities,' provided one takes due account (as is now widely appreciated) of the constraints of hidden structure and the like on conceptions involving natural kinds, for example. In my judgment, there is much to recommend this broad perspective on modal truth and knowledge, though I leave the argument for another occasion.⁴

I have phrased the conclusion of the existence stage in the vague terms of 'explainable in terms of' so as not to unfairly preclude options in the identification stage. The explanatory burden is to develop a picture of reality on which nothing exists as brutally contingent fact (i.e., wholly without explanation). One way to discharge that burden is to allow that there are many contingently existent things that find their explanation in the causal activity of a necessary being. And this, in turn, divides into two versions, depending on whether the necessary being is conceived to be personal or impersonal. Another way is to argue that, appearances notwithstanding, there are no contingent beings, as the universe itself is necessary being, and the entirety of what is (or could have been).

The identification stage, then, consists in an argument that the transcendent, personal creator model of necessary being is preferable to apparent alternatives. I think that there is reason to think that it is, so long as we don't hold ourselves to the absurdly high traditional standard of *demonstrating* that such a picture follows from the core attribute of necessary existence. What

follows is a line of 'probable reasoning,' inspired somewhat by argumentative strands set out by John Duns Scotus in his dense and original (and alternately intriguing and obscure) cosmological-ontological argument.⁵ It argues that only the transcendent creator model is compatible with a rigorous understanding of the role necessary being plays in excising brute existences and circumstances from our account of what there is. In calling it 'probable reasoning,' I don't mean to give the impression that I regard it as fairly unimpressive or trifling. Quite the contrary. I am simply acknowledging that I rely at one point on what is involved in our general conceptual grasp of the very idea of impersonal or mechanistic causation. Consequently, we must always leave it as an open possibility, epistemically speaking, that a sufficiently ingenious metaphysician will persuade us to broaden our conception in a way congenial to possibilities my argument purports to exclude.

I. From Necessary Being to God: Transcendent, Not Immanent

It is natural to begin with the most economical response to the conclusion that existence is founded in necessary being. This is the response of Spinoza (in very broad terms, as the details of Spinoza's particular account will not concern us here): the universe itself, in all its totality, is necessary being. Let us be brave and not balk outright at the striking implication that our world is the only possible world that there could possibly have been (*modulo* some modest degree of variation that we, unlike Spinoza himself, might permit in conformity to any indeterministic processes at work in the actual world). For the friend of the broadly Spinozistic metaphysic might with some justice point out that accepting the existence of a necessary being is already to exclude some offhand intuitions about what is metaphysically possible. It implies, for instance, that there simply could not have been nothing, or any world that does not include necessary being.

But though the friend of Spinoza deserves a hearing, his position is in the end untenable. I argue thus: The Spinozist believes the universe has necessary existence *of itself*, as the medievals liked to say, rather than being a necessary emanation of something existing of itself. But the universe is a complicated thing, and a necessary being *a se* (**NB**) must have a nature characterized by a kind of unity that is incompatible with the complexity manifestly had by our universe.

As a first step towards seeing this, consider the following question: Is the property of necessary existence something that *results from* the rest of its essential nature, or from some part of its nature? Apparently, neither of these can be the case, because then there being, 'in the first place,' so to speak, a thing having the 'base' set of properties giving rise to necessary existence would itself be a contingent fact, which contradicts the assumption that **NB** is truly necessary. That is, there would be a problematic explanatory/causal priority of these base properties relative to the property of necessary existence—the problem being that the existence of the putatively necessary being would be only *conditionally* necessary on the instantiation of some more basic features. So the logic of the concept pushes us to conclude that necessary existence is not a derivative or emergent property of **NB**, but a basic one.

Might it be that, while necessary existence (N) and certain other properties (call their conjunction 'E') are alike essential to NB, N could have been conjoined to some other nature? (That is, might N be only contingently connected to E?) It seems not. Were this so, there would be no explanation for the fact that N is *actually* connected to E. N is by hypothesis a final, ultimate locus of explanation. There is no getting behind it to explain any purely contingent connections it has with other features. So N, it seems, must at the very least entail the correlated nature, E. There must be an internal, necessary connection between them.

I will pause for a few comments on this. First, most medieval philosopher-theologians such as Aquinas went so far as to assert that this internal necessary connection among attributes must be that of identity. (Necessary existence just *is* omnipotence, just *is* omniscience—and indeed, just *is* the necessary being Himself.) True to his title of 'The Subtle Doctor,' Scotus placed the most exquisitely subtle qualification on such an identity, connected to his famous notion of the 'formal distinction.' Alas, it is very hard to be sure just what this is supposed to come to. In any case, *prima facie* it is possible to stop short of asserting the simplicity-identity thesis, and suppose instead only that there is an intimate internal connectedness short of identity. (And if it is possible, it is highly desirable, as the doctrine of absolute simplicity is a very hard saying, bringing all sorts of conceptual problems in its train.)

I cannot make plain the interconnectedness of distinct attributes here inferred, as our grasp on the property of necessary existence is tenuous. But here's a quick example of how one might come to see subtle entailment relations between properties that at first seem mutually independent. In philosophical theology, God is often conceived as being perfectly powerful, perfectly free, and perfectly knowledgeable. One might think these are simply three impressive attributes that have no deep connection. After all, the corresponding attributes of more limited agents often fail to co-vary: powerful people are not always the most knowledgeable, nor the most free. We can plausibly argue, however, that perfect power entails perfect knowledge. Extent of power seems to be a function of at least two variables: the amount of work that can be performed in a single task and the range of tasks one is able to perform in a given circumstance. Corresponding to any total circumstance, an impersonal causal agent is disposed to generate a single effect, or perhaps any of an indeterministic range of effects along some scale of magnitude. The range of possibilities for a circumstance is thus narrow. A personal agent with freedom of choice, by contrast, is capable of a broader array of actions in a given circumstance. Other things being equal, then, a causal agent endowed with free choice has greater power than one lacking it. So a perfectly powerful agent would also be free, indeed perfectly free. Further, freedom of choice requires knowledge of the possibilities and how they are to be achieved. Perfect power and freedom would require an essentially unlimited knowledge, corresponding to the unlimited range of possibilities. So ends my quick little argument, whose point was essentially to convey a more concrete mental 'fix' on what might be meant by saying that a range of properties are distinct and yet internally connected.

When suggesting that we resist the identity thesis of simplicity, I spoke of an internal connection between necessary existence and the other *essential* attributes of **NB**. Contrary to Aquinas and other simplicity theorists, I believe that we may legitimately distinguish between those properties of a necessary being which are essential to it and those which are not—those which are “accidental,” in the Aristotelian/ scholastic jargon. As I do not wish to get sidetracked by arguing this point, when I develop arguments here concerning the implications of necessary existence for an entity’s *nature*, the reader is encouraged to mentally ‘bracket’ the question of whether it is consistent with those arguments that the entity might have accidental properties, and indeed be subject to change.

One final comment before returning to our main line of argument. Some may wonder whether I might not have improperly foreclosed one avenue to understanding how the universe could be a necessary being by the very manner in which I set out the challenge (the challenge of understanding the relationship of necessary existence to the rest of an **NB**’s essential nature). In some recent philosophical-cum-scientific cosmological speculation, some theorists apparently have entertained the idea that the causal laws governing our world might be the only logically *consistent* set of comprehensive laws.⁶ If this were to prove correct, then, contrary to initial, off-hand impression, there simply could not be a consistent *conception* of a physical universe that differs from ours in its causal structure. (I say “apparently,” because I strongly suspect that this way of putting the matter, as some do, is a result of a confusion, and that what is meant is something such as “consistency relative to some base set of assumptions, themselves contingent.” But let us ignore that.) The suggestion, then, is that we might have a kind of explanation of why this world exists that differs from the familiar causal/intrinsic feature sort of explanation, a kind that is analogous to purely *geometrical* forms of explanation. However, even if it were true that there is only one *consistent* set of comprehensive laws (and of course we have at present no reason at all to think that it is), this would not provide a means of evading the assumption that necessary existence must be a basic, intrinsic property of a necessary being. The putative logical explanation entertained would only circumscribe fundamental aspects of the *character* had by any universe there is; it would not explain why there is anything in the first place to which such a law would apply. (Compare the analogous cases of geometrical explanation.)

Let us now return to the main line of inquiry. Thus far, I have argued that there must be an internal connection between necessary existence, **N**, and any other essential features of **NB**. Now apply this to the hypothesis that the physical universe is **NB**. How can **N** be a basic property of the universe, given that it has enormous mereological complexity? Apart from topological features, its other basic properties are properties of its parts (the elementary particles and fields), not the thing as a whole. And we can’t say that it *emerges* from the organizational structure of the whole, given the previous reasoning that necessary existence must have explanatory/causal priority to other properties of **NB**, on pain of its turning out to be only conditionally, rather than absolutely, necessary.⁷

Perhaps we should consider a substantial modification of our hypothe-

sis. Rather than supposing that N is a basic feature of the entire universe, we may conjecture that each elementary particle/field is an **NB**. We have already argued that there can only be one *kind* of correlated nature connected to N. So we must hold that there is only one kind of *fundamental* physical particular. (String theory to the rescue?)

To take our reflections further, we must consider the properties of this supposed fundamental kind of particular. Philosophers dispute whether these properties are best conceived as *universals* (which can be wholly present at any number of places at a given time, present in such a way as to enter into the metaphysical makeup of various particular things) or *tropes* (particular entities which generally don't stand alone but come bundled together to form individual substances, such as electrons). I should not like my argument to have to hang on so controversial a matter as the proper philosophical account of properties. So let us consider the broadly Spinozist position on necessary being from the vantage point of each of these alternatives.

Suppose first that properties are universals: entities wholly instantiated in distinct particular objects. Since no particular object could *entirely* consist in a collection of literally shared (or shareable) features, objects must also have some individualizing aspect, something in virtue of which the object is *this* thing, and not some other, possibly qualitatively identical thing. If our modified Spinozist adopts this metaphysic of universals + individuating elements, he faces an argument that there can only be one *individual* that is **NB** on grounds parallel to those given for there being only one *kind* of thing that is **NB**: Otherwise, *per impossibile*, there would be no explanation of why the individualizers, the thisnesses, of all those entities that are **NB** were instantiated by necessary existence, N. We may grant that universals cannot exist in the absence of individualizing aspects, and vice versa. (Universals and thisnesses are always 'immanent to' their instances, each incapable of existing on their own.) Even so, there will be no accounting for the union of the thisness of this particle (say) and the universal feature of necessary existence, literally shared by the others. For contingent particulars, this union is explained by the activity of an external causal factor in giving being to the new individual. But this form of explanation is obviously unavailable in the present context. As I stressed earlier, necessary being is the locus of *ultimate* explanation. And it does not seem coherent to suppose that there is an internal relation between a universal, of whatever sort, and an intrinsically property-less individual aspect or thisness. There's nothing *about* the latter that could ground the connection: it's just *this* (and not *that* or *that other* or...). So what can we say here, whatever our view (whether Spinozist or not) of necessary being? Just this: necessary existence is **NB's** thisness. That is, necessary existence is not a shareable property—not a universal. If, then, there are a plurality of **NBs**, as the view we are exploring maintains, each one will have its own N, an unshareable individuating feature of necessary existence.

It seems our modified Spinozist has been cornered into embracing the trope alternative to the universals/particularizers metaphysic. On it, again, properties are not literally shared or shareable by more than one particular, but are instead abstract particulars, or 'tropes' (such as "this bit of unit neg-

ative charge"), which are constituents of concrete particulars, such as electrons. Each **NB** would have an exactly resembling trope of the N-type. Obviously, our Spinozist won't make any further headway if he supposes with some trope theorists that, in addition to a bunch of tropes, each object has a non-qualitative, individualizing aspect.⁸ So let us take our trope theory to be instead a 'bundle' view, on which particular objects such as pieces of chalk just are bundles of tropes related by some special relation of 'compresence,' as trope theorists like to say, whose nature we needn't consider here. Each of the fundamental particles or fields in our world is simply a bundle of tropes, perhaps including charge, mass, and spin tropes alongside necessary existence. It is not implausible to suppose that tropes are essentially had by their actual bearers, in the weak sense that a given trope could not have been had by some other concrete object. Let us accept this assumption, which helps the Spinozist cause, as we thereby sidestep the problem posed for the universals version of his view.

Recall that it is not enough for something to be necessary being *of itself* that it necessarily exists. It also cannot be causally dependent for its existence, even by way of a kind of metaphysically necessary emanation, on any other thing. Now, the view under consideration has it that the 10^{80} or so elementary particles constituting the universe are severally necessary beings in this way. Consequently, none of the fundamental tropes which are necessary features of those particles has been caused to exist. The only place for causal dependency is in the spatiotemporal distribution of the particles and any inessential tropes they may have. Each particle exists of itself, but it occupies the location it does and has certain of its features because of the causal activity of the other particles.

But, on second look, we cannot say even this much. For the fact that the particles are spatiotemporally distributed as they are would be, in the final analysis, a brutally contingent fact. The Spinozist in fact faces a fatal dilemma: maintain that a particle's position is externally determined or hold that it is (somehow) an essential feature of it. If the former, then the fact that the structure unfolds just as it does (with the particles occupying their respective places) is an ultimate contingent fact. To concede this is to abandon the explanatory quest that made him a Spinozist in the first place. However, the second alternative is not viable either, for we have already argued that all necessary beings (if there are a plurality) must have the very same essential nature.

The conclusion to which the foregoing argumentation points is that, owing to the mereological complexity/diversity of the natural world, on the one hand, and the constraints implied by the very notion of necessary being, on the other, a necessary being cannot be right in the thicket of natural-worldly things, as the friend of Spinoza would have it. It must be transcendent. Although some of the details of the route we've pursued are novel, the upshot should not be entirely surprising, given the tradition of metaphysical reflection stemming all the way back to Parmenides. For when necessary being has been conceived as immanent to the universe, it has invariably involved the supposition that the world is radically different from that which it appears to be. I have argued that this move cannot be sustained, given only the minimal assumption of the compositional and

causal nature of the universe. (And what can be said against the philosopher who would deny this assumption? For my part, it is enough to note that neither he nor anyone else could ever maintain such a position without thereby falling into pragmatic inconsistency.)

II. From Necessary Being to God: Logos, not Chaos

We have argued that there can be only one kind of necessary being, whose properties are particulars bound up in relations of mutual entailment. Might a similar line of reasoning show that there can be only one such individual? I do not see that it can. As I noted above, on the trope metaphysics of properties, there is some plausibility to the claim that this instance of electric charge, say, could not have been had by another electron. Likewise, if there were 17 necessary beings, NB#1's instance of the property of necessary existence plausibly could not have been had by NB#17. It may seem odd that there are 17 necessary beings, no more and no less. But given that the explanation of the existence of a necessary being is immanent to it, the global fact of how many there are will fall out of those individual facts, however many there are.⁹ On the other hand, the contingency of our own universe does not give us reason to posit more than one transcendent necessary cause of it, and the fact of the universe's tight structural and causal unity (stemming from an initial singularity) seems to be modest evidence in favor of a singular cause. I shall hereafter speak of 'the necessary being,' meaning that which lies at the origin of our contingent realm and taking uniqueness as but a working hypothesis.

Now, the thesis that there is a unique, transcendent, and highly unified necessary being which generates contingent being is compatible, on the face of it, with two very different pictures of the nature of such a being: the familiar theistic model of a purposive agent and some form of impersonal, 'mechanistic' model. As Peter van Inwagen has put it¹⁰, we have not yet seen reason to prefer the conception of *Arché*, the primordial fount of being, as *Logos* to that of *Chaos*. In this section, I will argue that the Logos model is viable, whereas the *Chaos* model is not.

II.2 The Viability of the Logos Model

It has recently been argued by several philosophers that the *existence* stage of the argument already proves too much. If it were true that contingent actuality and all absolute possibilities require necessary being, ultimately, for their basis, then further reflection should lead us to the absurd conclusion that there is no contingency at all: the only genuine possibilities are those that are actualized. This is argued without assumptions concerning the nature of necessary being: it might be immanent to the natural world in Spinozistic fashion, or transcendent, as on Leibniz's picture. Either way, it is claimed, the consequences are the same for mundane contingency.

Such a damaging consequence is drawn from versions of the cosmological argument that rely on the Principle of Sufficient Reason (PSR). The essentials of this no-contingency argument may be put thus:

The proponent of the cosmological argument from contingency holds that for any truth whatever—truths about the existence of particular objects, truths about the nonexistence of others, truths about the pattern of events in the world, etc.—there must be a sufficient reason why it is thus and not otherwise (PSR). The existence of the natural world in all its particularities is one such (albeit very complicated) truth. But without pausing to consider which of its component truths might most plausibly be thought to be contingent and which (if any) necessary, let us consider that truth which is the conjunction of all merely contingent truths, whatever they may be, and let us call that truth 'C.' By hypothesis, C might have been otherwise. Clearly, no reason as to why C holds is to be found within C itself, i.e., among the contingent truths. But by the PSR, there must be some such reason for C's holding. Hence, the reason for C must be some necessary truth, N. The explanatory *link* between N and C, whatever its basis, cannot be a contingent one, since in that case the truth about it would be contained within C, and so could not serve as part of the explanatory grounding of C. So it must be necessary. But necessary consequences of necessary truths are themselves necessary, and so our original assumption that C is contingent is shown to be false.¹¹

This argument from PSR to the necessity of all truths is, I believe, unanswerable. (And I follow the objector in taking this conclusion to constitute a *reductio* of any thesis that implies it.) In point of fact, though, an argument for necessary being need make no mention of PSR or anything superficially like it. Its central premise is that there is some explanation for the existence of any contingent thing and it concludes that the only ultimately adequate explanation will terminate in the activity of a necessary being.

However, some will contend that the plausibility of that premise depends on a *covert* assumption of PSR.¹² For if the physical universe is held to be causally dependent on necessary being, and yet there are features of the universe for which there is no sufficient reason within the nature of necessary being, then (it is argued) we have not really succeeded in indicating the basis for an explanation of *this universe's* existence, where "this universe" picks out the concrete totality of contingent things, in all its detail. A putative explanation that cites an explanatory factor that does not uniquely determine the existence of this universe *ipso facto* fails to explain why this universe obtains rather than any other possibility not ruled out by the explanans—and so, it is suggested, does not explain why this universe obtains *simpliciter*.

This contention, I will argue, founders on a faulty view of what is required for explanation, viz., that giving a fully adequate explanation of some state of affairs X involves explaining why X obtains rather than any competing possibility Y. Explanation need not be *contrastive*. In particular, there is a viable form of noncontrastive explanation of the universe that appeals to a transcendent being's purposes in creating.

The topic of *intentional* explanation in terms of the desires, intentions, and beliefs of a purposive agent is difficult and controversial. In my view, one flawed assumption of recent philosophical work on this topic is that

there is only one form such explanation can take. The form of intentional explanation I shall employ is one which has been widely thought discredited in relation to human action. I think that prevailing opinion is here mistaken.¹³ In any case, the most pressing problems for the application of the account to human action are empirical, not conceptual, and stem from assumptions concerning human beings and the wider natural order that need not be made in relation to a transcendent necessary being.

Our model conceives necessary being as a personal agent, with a capacity to conceive possible courses of causal activity and to choose from among them. This, in turn, presupposes the applicability of a notion of preference or desire, construed broadly. However, we need make no assumptions concerning the substantive nature of such a being's valuations (in particular, we make no assumptions concerning its apprehension and expression in action of objective moral or metaphysical goodness). Bold metaphysician I may be, but I do not claim to discern the mind of God a priori. Our model is schematic, laying bare the form that such an intentional explanation would take, while being silent on its specific content.¹⁴

Now, Leibniz held that the necessary being that provides ultimate explanation *must* choose what is the *best* of all possible arrangements, where 'best' here has a metaphysical sense broader than that of 'morally best.' If it were otherwise, if there were a range of alternatives any one of which might have been chosen (for different reasons in each case), then there would not be a sufficient reason for the choice that was actually made, and so really no explanation at all. More generally, he held, an agent's action is explained by some reason(s) only on the supposition that given this reason in that context, it was inevitable that the particular action ensue. (Leibniz himself, of course, would not have used the language of 'inevitability' or 'necessity' here, but this is owing to an idiosyncratic usage of those terms.)

Why suppose that? One such reason (though not Leibniz's, it is commonly held among contemporary philosophers) stems from treating a 'causal theory' of human action as a conceptual truth about (any agent's) acting for reasons. Broadly speaking, the causal theory holds that some bodily behavior of mine is an action only if it is a causal consequence, in an appropriate manner, of factors prominently including my having a reason to do so. Bodily movements that are not a causal consequence of reasons are mere (unintentional) movements. Thus, an agent's *control* over his activity is taken to reside in the causal efficacy of his reasons. A defender of such a view *might* add (what is controversial among causal theorists of action) that for such reasons truly to explain the action, the link must be deterministic.

But this causal account of intentional agency is not the sole, nor even most intuitive, option. One would ordinarily suppose that I myself settle the matter of how I will act by freely *forming* the intention that results in the action while having been free to form competing intentions that are motivated by other reasons. I experience this control, not as the joint efficacy of states of belief and desire, but as a direct, distinctively personal form of control *guided* by reasons.

The causal theory is a counterintuitive extension of the basic understanding of the causal activity of impersonal mechanistic systems to that of per-

sons. We have come successfully to treat impersonal objects and systems of objects 'mechanistically,' i.e., to understand them as having the basis of their capacities in their underlying natures—their chemical, physical, or genetic constitutions and dynamical structures—and as manifesting these powers in observable effects *as a matter of course* in suitable circumstances. On this broad conception, circumstances prompt the exercise of such a power either by stimulating a latent mechanism to action or by removing inhibitors to the activity of a mechanism already in a state of readiness to act. My contrasting, non-mechanistic picture of personal agency posits a direct causing of an internal state(s) of intention that a particular determinate state of affairs obtain. This is not, importantly, to be treated as an elliptical expression for there being some prior state of the agent that brings about, in *mechanistic* fashion, the agent's coming to have the intention. Rather, the intention is irreducibly a product of the agent *qua* agent.

I presume that this notion of personal, or 'agent' causation is coherent (whether or not it is applicable in fact to human beings) and will try to show that it permits *contingent* reasons explanations of actions and their effects. Suppose that our necessary being has some purpose P and recognizes that creating contingent order C would satisfy P. Suppose further that he subsequently (at least in some causal/explanatory order of priority, if not a temporal one) generates an intention whose content is *that C obtain in order to fulfill P*, and that C's obtaining is itself an immediate product of that intention. In such a circumstance, I claim, the core activity and its product are perfectly well explained by reference to the agent's purpose and his belief that C would satisfy it, without any Leibnizian assumption that the activity was *necessary* given the explaining purpose and belief, or even that they made it probable. The explanation of an agent's exercising a capacity to freely act for a purpose is grounded in a two-fold internal relation of the content of the prior purpose to the effective intention: they have a common core *content (that C obtain)* and the intention directly *refers* to the matching purpose. In short, to understand why an intention is freely generated, one need only identify its reasons-bearing content. This contrasts, of course, with a mechanistic model of intentional action on which an agent's purposes or desires and beliefs explain the choice, or formation of an intention, solely in terms of an external, causal relationship to it. But it is readily understandable in its own terms.

Our present goal is to give a schematic account of intentional explanation that allows for a robust contingency to many aspects of the natural order without being forced to admit brutally inexplicable phenomena. What is it that is left unexplained, on the supposition that a necessary being *might* have sustained any of a very wide range of possible orders answering to competing motivations, none of which came decisively weighted, as it were, above any of the rest? Not the enormously complex range of connected *events* involving the existence and interactions of concrete objects and systems, which totality I earlier dubbed "C." For I have already argued that the occurrence of such phenomena and the existence of their constituent entities would be adequately explained by reference to the reasons *actually* guiding the necessary being at their origin. (The *having* of such reasons is part of the essential nature of such a being, and so these

states are themselves necessary, even though it is not necessary that they be the reasons acted upon.) Neither is it plausible that the necessary being's own activity is unexplained. The action's constitutive intention is a direct product of the being itself, explicitly guided by specific motivating factors. And it would be a confusion to suppose that we need a further explanation of the *generation* of the intention—for that just is the agent's exercise of control over his state of intention and its product.

The most likely target for an explanatory loose end within the present picture will be '*contrastive facts*' of the form, *C's obtaining rather than C**, where *C** is a possible but rejected alternative to *C*. Let us suppose, then, that there is no explanation for many such contrastive facts. That is, there is an explanation for why *C* obtained (ultimately involving the necessary being's causal activity as guided by particular reasons), but no explanation (of a reasons-based or any other sort) for why *C* obtained *rather than C**, a possible state of affairs for which there also were motivating considerations. On a natural reading of the question, "Why did *C* obtain rather than *C**?" what is being asked for is a factor that 'tipped the scales' in favor of *C*, a factor the obtaining of which ruled out the occurrence of *C**. But once we analyze the question in this way, we see that it amounts to little more than a demand for an account that renders the actual state of affairs inevitable. But that there is no such account to be given, owing to its contingent origins, does not entail that explanation is absent for what has actually obtained: the *concrete* reality of persisting particulars interacting and undergoing change through time.¹⁵

The point I am making is not restricted to the model of agency being explored here. It applies to indeterministic *mechanistic* causal processes in the natural world, and the kinds of scientific explanations that may be given for them. Tertiary syphilis, when untreated by penicillin, leads to paresis, a form of motor paralysis, about 28 percent of the time.¹⁶ Furthermore, paresis only arises in syphilitics. Assuming for the sake of the example that this statistical fact is a result of a fundamentally 'chancy,' indeterministic process, we can explain a given occurrence of paresis, nonetheless, by pointing to the presence of the untreated syphilis. (And this, despite the fact that the explanandum was not even made likely by the explaining factor cited.) For the latter, *ex hypothesi*, caused the former in an indeterministic fashion. It may well be that we cannot explain why the paresis occurred *rather than not*, given that it was causally possible (and indeed likely) that it not occur under just those circumstances. But why is it not enough for a *noncontrastive* explanation of what actually occurred that we point to the causal mechanism (however chancy) that produced it?

Though the manner of activity is quite different within the model of *personal* agency sketched here, the moral is the same. On this view of things, the existence of each natural particular and the events in which they participate admit, in principle, of a fully adequate explanation in terms ultimately involving their causal dependency on a necessary being, whose activity was guided but not determined by some goal or goals that the actual order of things were seen to satisfy. (Which is to say, there is an account of why there is anything at all and why the natural order has the character it has.) And by understanding (in schematic fashion) the nature and characteristic activity of

the being on whom all possibilities and actualities ultimately depend, we can see, too, why these dependent entities exist *only* contingently.

II.2 The Untenability of Chaos Models

I think there is at least one significant consideration of a cosmological/causal sort that favors the *Logos* over the *Chaos* conception of necessary being. The latter admits of several varieties falling under the more general categories of single-stage and multi-stage generation, and so we must deal with each of them in turn.¹⁷

I will begin by considering single-stage models, of which there are three basic varieties. *Immutable Chaos* acts out of a necessity of its own nature in producing the actual dependent order (and it alone). *Abundant Chaos* necessarily produces an enormous range of discrete worlds, including our own. *Unpredictable Chaos* is a 'chancy,' indeterministic mechanism, having the capacity to generate any of a very wide range of worlds. It in fact generated our world, though it need not have done so.

I want to argue for the preferability of the *Logos* view to all these varieties of *Chaos* through reflection of the variety and, especially, the *particularity* of the features of our physical universe. Here I do not have in mind highly specific facts about the location and states of individual objects, many of which may well be a chancy outcome of indeterministic systems within the world. Rather, we may focus on more general facts such as the *nature* and *quantity of matter*, the *size of the universe*, and so forth. Contra *Immutable Chaos*, on which this world is its necessary, unique product, it is difficult to imagine that a nature whose attributes form a tight unity (as we have argued must be true of NB) could be *necessarily* ordered to just such effects, for there would have to be a necessary correspondence between facets of NB's nature and each of the general features (at least) of its effect, the spatio-temporal universe, and this is simply implausible. This consideration of the seeming 'arbitrariness' of a world of just our sort might tempt one to move to *Abundant Chaos*, on which this world is but one of many fruits of *Chaos*. But I cannot see that it helps matters at all on this score. For surely it is no explanation of why the nature of *Chaos* is ordered to *this* effect to say that it is because it is ordered to that entire *range* of effects, and this is one of them. Really, the situation is just made more problematic. How is it that a highly unified source could be causally ordered to just this effect, and *also* to just that one, and...?¹⁸

The worry with the *Chaos* model thus turns, not on a presumption of *uniqueness* of this world as its outcome, but on the 'arbitrary' because variegated *particularity* of it. Perhaps my point will become clearer by considering the Leibnizian version of *Logos* that shares the necessitarian implications of the two versions of *Chaos* considered thus far. On Leibniz's account, the necessary causal connection of the universe to NB's nature is less direct than on *Chaos*, as it is mediated by a representation of possible scenarios, including the one ultimately selected because there is putatively objective reason to prefer it above all the rest. The basic causal *capacity* out of which our world flows on Leibniz's picture (or any other rendering of *Logos*) is of a much more general, dependent-being-generating sort. That it

inevitably gets directed at one highly particular scenario is a result of the controlling function of God's goodness together with His recognition that this world is best. The particularity of the effect is thus not directly tied to the divine nature, or power of that nature, *per se*, but to the fact that our world, for all its particularity in detail, uniquely fulfills the basic intention to create what is best. And of course, **NB** is even less directly tied to this world as consequence if we reject Leibniz's assumption that there is a best possible world and suppose that *Logos* could have given rise to any of a wide variety of worlds.

But now if this is so, one will naturally wonder whether a suitable version of *Chaos* could ride piggyback on this alleged advantage of the *Logos* view. And indeed, is this not the case with *Unpredictable Chaos*, whose chancy mechanism gives us the desired implication of a causal 'loose fit' between **NB** and our world, without supposing purposive agency? Consider that it must hold that the selfsame causal capacity that gave rise to our world might have given rise to any of a wide range of different worlds. (If it held instead that corresponding to each possible outcome there was a distinct mechanism in *Chaos* that might have generated it, though it was undetermined which would 'win out,' by chance, then it would just be a variation on the multiple-worlds-generating picture and inherit the latter's problem.) This is puzzling at first glance. How could a very generic generating capacity come to give rise to one particular possibility (differing greatly from many of the others), absent some further factor that focuses it in that particular way? The natural phenomena from which the view draws its inspiration don't seem to help here. On one reading of apparently indeterministic processes in nature, there are irreducibly 'chancy' mechanisms that have a capacity to generate any of a range of effects, without being determined to bring about any particular one of them. But in such scenarios, the range in question is highly circumscribed, typically having to do with the precise value(s) of a variable(s). A highly specific *type* of effect is determined, but certain quantitative or temporal details are not. Such indeterministic outcomes can be *magnified* so as to have more strikingly different future effects, but that is owing to the subsequent activity of yet further mechanisms. The radically unstructured causal mechanism envisioned on the present version of *Chaos* is quite unlike this. Surely its mechanism has to have more structure, or else be given focus in its activity by some additional factor. That is, it needs to be made to be a more specific capacity *in context*—if you like, the mechanism + focusing contextual factors would jointly *be* such a more specific capacity.

Consider the *Logos* alternative on this score. *Logos* has, at an abstract level, an equally open-ended creative capacity. But its non-mechanistic capacity is given focus by reasons (intentional states). By hypothesis, *Logos* could realize any of a large range of possibilities, yet in any case of its *doing* so, its generic capacity to act is focused by reasons. Put differently, prior to its actual exercise, *Logos*'s causal capacity is generic, or open-ended. But the *exercised* capacity is narrower, being the generic capacity + the actually guiding reason(s). If *Logos* acts with freedom, there is no inevitability of its acting on this narrowed capacity.

What *Unpredictable Chaos* needs, then, is an *internal* factor that likewise

focuses its activity in indeterministic fashion. Here a device akin to a (truly) random number generator seems to fit the bill. Just imagine that its outcome determines the values of the basic variables circumscribing its output.¹⁹

Unpredictable Chaos, then, appears to be a more defensible version than either of the other two. But I believe that it also faces a challenge peculiar to it, stemming from the much discussed 'fine-tuning' data of contemporary cosmology. Physicists have documented numerous fundamental respects in which our universe, according to present theory, is exquisitely 'fine-tuned' for the eventual appearance of biological (and so intelligent and sentient biological) life. What is meant by the neutral term "fine-tuned" is that there are apparently contingent features of the universe, involving such things as ratios of basic particles or forces or the specific value of very large numerical constants in dynamical laws, such that had any one of them differed appreciably, the universe would not have evolved in a way consistent with the appearance of biological life.²⁰

Now, my argument for the implausibility of the *Immutable* and *Abundant Chaos* pictures turned on the particularity of our universe, but not on the specialness of its particular features, and so is not a form of design argument. However, the fine-tuning data do provide a point in favor of the *Logos* view as against *Unpredictable Chaos*. In recent discussion, the design argument from fine-tuning is taken as a stand-alone argument.²¹ But we may also consider it as sub-argument within the identification stage of the cosmological argument.²² Against the background assumption of a transcendent, world-generating **NB**, the *Logos* view is more plausible than *Unpredictable Chaos* on the fine-tuning data. Suppose each of the hypotheses as having roughly equal prior likelihood. The outcome we observe is far more likely given the *Logos* hypothesis than the *Chaos* alternative. While we cannot reasonably assume that the conditional probability of a fine-tuned universe on the *Logos* hypothesis is high, it seems that we can reasonably judge it to be not very low. The existence of intelligent life is presumably a good that an intelligent designer would contemplate, and it is not inconsistent with any other good of which we know. By contrast, the conditional probability of what we observe, given the *Chaos* hypothesis and our best current theory, is indeed very low. It is reasonable, then, to conditionalize on this information and prefer the *Logos* hypothesis.

It may be objected that talk of relative likelihoods is out of place in this context. Since each hypothesis concerns a putatively necessary being, the objective probability of its being true is either 0 or 1. A judgment of comparative plausibility relies on a notion of epistemic probability that is not grounded in objective probability. Furthermore, the appearance of greater 'plausibility' on the fine-tuning data seems to trade on the non-intuitive, purely theoretical nature of our grasp of the property of necessary existence. If *Immutable Chaos* is in fact true and we were to cognize its dynamical nature in something like the way we cognize certain overall features of middle-sized material objects, then we would 'see' the inevitability of its acting just as it does in generating our universe. Far from seeming implausible, it would seem inevitable!

While the considerations advanced seem to me to be correct, the conclusion does not follow. There must be a notion of epistemic probability

(unconstrained by objective probability) that governs reasonable belief concerning the existence and nature of a necessary being—or for that matter, of other hypotheses concerning metaphysical necessities that do not admit formal proof. For the evidence we go on, whatever our verdicts, inevitably involves considerations of theoretical adequacy that do not seem amenable to objective probability assignment. (I suggest the same is true of judgments concerning contingent theoretical hypotheses in science.) As the matter merits more consideration that I can give it here, I will have to presume the reader's agreement on the general proposition, whatever the details of the operative notion of epistemic probability.

I said earlier that there were two broad categories of *Chaos* models. I've argued against single-stage generator accounts on the grounds that it is less plausible that an impersonal cause having the unity of essential nature required for NB is the source of a highly variegated world such as ours than it is that a personal cause is the source. But perhaps *Chaos* holds more promise if the gap is crossed in several small steps, rather than one giant leap.²³

I am able to conceive two versions of the multi-stage generator approach. The first is modeled on a 'rotating tray' assembly, where a product sits on a tray, has a fillip added by one machine then rotates over to a second, which adds a different part, and so on down the line. We might suppose instead a single machine that acts on its product. After the action, the tray spins around (the product changing somewhat in the process) and returns to the original location, at which point the machine acts anew. Analogously, *Chaos* might have a first-stage product, simpler in form and variety than our world, which evolves internally for a spate of time, until *Chaos* acts on it again. Since the evidence we have suggests there is no such systematic external tinkering within our universe, we would naturally posit this activity at limit points. Oscillating universe cosmologies, with their periodic Big Bang/Big Crunch singularities are readily amenable to this idea.²⁴ The second version does away with the inelegance of periodic tinkering by supposing an incremental series of more complex cosmoi whose development is entirely self-directed, with significant modifications occurring at the limit points. The highly particular complexity of our universe merely suggests it is somewhere down the chain.

I concede that these versions of *Chaos* are harder to dismiss. However, part of the reason for that is simply the obscurity of what occurs at the crucial limit points. If the views are not to collapse into forms of *Abundant Chaos*, which generates distinct cosmoi by independent actions, there must be internal causal continuity between the stages. What seems quite unclear to me is whether overall integrity of the whole is consistent with additions at the singularities either of new fundamental agents (new kinds of particles, perhaps) or new dynamical or topological parameters. Without such additions, you'll not be able to suppose a significant gap in kind between *Chaos* and our universe, and this is the very premise motivating the multi-stage approach. While not ruling out the eventual workability of such a model, I tentatively judge the multi-stage approach to be less preferable than *Logos* owing to its greater obscurity.

More generally, I conclude that we have at least one extended line of

reasoning of a fairly fundamental sort for thinking that the *Logos* model of necessary being is the correct one. I do not contend that this consideration settles the matter. But it seems to me a reasonably significant one, warranting some serious conceptual development by the philosopher inclined towards the rival *Chaos* view.²⁵

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NOTES

1. This argument need not assume anything as strong as the Principle of Sufficient Reason, which I discuss below.

2. Compare Richard Gale's purported 'ontological disproof' of the cosmological argument. Gale notes that the *possibility* of morally unjustified evil is, given certain plausible assumptions, incompatible with God as traditionally conceived. And he then argues that the claim that there *could* have been such evil is more plausible than the claim that there is a *necessarily* existent God so conceived. See *On the Nature and Existence of God* (Cambridge: Cambridge University Press, 1991), pp. 281-4, and the supporting argument for its main premise on pp.227-37.

3. There is a similarity here to the claim of Leibniz that an "effect is conceived through its cause" and the claim of Spinoza that "the knowledge of the effect depends on the knowledge of the cause, and involves it." The similarity is superficial, however, if these other claims are interpreted in a strongly rationalist manner. See the brief discussion of the role of this claim in Leibniz's thinking by Robert M. Adams in *Leibniz: Determinist, Theist, and Idealist* (New York: Oxford University Press, 1994), pp.152ff.

4. It is the subject of a book I am currently writing, *The Necessary Shape of Contingency*.

5. See, e.g., the fourth chapter of his *Treatise on God as First Principle*, tr. and ed. Allan Wolter (Chicago: 1966, 2nd ed.). I discuss the existence stage of Scotus's argument in "Scotus on the Existence of a First Efficient Cause," *International Journal for the Philosophy of Religion* 33 (1993), 17-32, and the identification stage in "From First Efficient Cause to God: Scotus on the Identification Stage of the Cosmological Argument," in *John Duns Scotus: Metaphysics and Ethics*, ed. L. Honnefelder, R. Wood, and M. Dreyer (Leiden: E.J. Brill, 1996). The general thrust of some of what I argue here is foreshadowed in the latter paper, though the details are necessarily different in important points, owing to my differences with Scotus on how best to make the case as well as on matters of basic metaphysics.

There are, of course, similarities with other important historical figures. Among the more striking, yet often unnoticed, parallels is Samuel Clarke's influential 1704 Boyle lectures, *A Demonstration of the Being and Attributes of God, More Particularly in Answer to Mr. Hobbs, Spinoza and their Followers*.

6. Stephen Hawking flirts with this idea in *A Brief History of Time* (New York: Bantam Books, 1988).

7. Here it is tempting to consider the actual views of Spinoza himself, for whom 'God or Nature' is explanatorily prior to its finite modes. Tempting, but a temptation to be resisted, as the meaning of Spinoza in this connection is notoriously difficult. I will say only this: If (as is commonly supposed) Spinoza's God is identical with the whole of Nature, the totality of physical things, then I simply cannot make sense of the claim that it has finite 'modes'

which are explanatorily posterior to it. On the other hand, if (as Edwin Curley suggests in *Behind the Geometrical Method*, Princeton University Press, 1988), God is instead identical with his infinite attributes, conceived as a system of laws of nature, then (as Curley himself holds) Spinoza's metaphysic is not one of a truly necessary being in the sense being explored here.

8. C.B. Martin, "Substance Substantiated," *Australasian Journal of Philosophy*, 1980, 1-10; George Molnar, *Powers* (Oxford: Oxford University Press), 2003, 47-51.

9. *On the other hand*: if we adopt a strong truthmaker principle for basic facts, on which for every truth, there is some state of affairs *in re* that necessitates the truth, it is not true that the global fact of how many NBs there are 'falls out' of those individual facts. (See, for example, David Armstrong, *A World of States of Affairs*. Cambridge University Press, 1997.) Suppose there are ten turtles on the road. Now consider the state of affairs involving just five of those. This, obviously enough, is not a truthmaker for the false proposition, *There are exactly five turtles on the road*. Likewise, the state of affairs consisting in the ten turtles on the road does not suffice for the true proposition that *there are exactly ten turtles on the road*. What is needed beyond the positive states of affairs involving the ten turtles is a negative, global state of affairs entailing that *that is all there are*. Now it is hard to see wherein such a necessary 'that's all' fact would reside, were there a plurality of necessary beings. If, necessarily, there were uniquely one such necessary being, no such 'that's all' truthmaker, external to necessary being, would be needed.

10. *Metaphysics* (Boulder: Westview Press, 1993), p.146.

11. This formulation of the objection closely follows that given by Peter van Inwagen in "Why Is There Anything At All?," *Proceedings of the Aristotelian Society*, Supp. Vol. 70 (1996), pp. 95-110. (See pp.97-99.) See also William Rowe, "Rationalistic Theology and Some Principles of Explanation," *Faith and Philosophy* 1 (1984), pp.357-369.

12. For example, Peter van Inwagen, *op.cit.*, implies that the *only* superficially plausible argument for there being a necessary being is the one involving PSR (and since that must be rejected owing to the absurd consequence just shown, there can be no cogent argument for this conclusion).

13. I defend this account in *Persons and Causes: The Metaphysics of Free Will* (New York: Oxford University Press, 2000).

14. I consider the compatibility of the doctrine of God's metaphysical simplicity (discussed earlier) with the account of intentional action to follow in "Simplicity and Creation," *Faith and Philosophy*, July (1999), 405-412.

15. Some will insist, contrary to the view I'm defending, that the fundamental objects of explanation just are contrastive facts, not concrete entities such as objects and the processes they undergo. (See, for example, Bas van Fraassen, *The Scientific Image*, Oxford University Press, 1980, 126-29, as well as the essays by van Fraassen, Lipton, and Woodward in David-Hillel Ruben, ed., *Explanation*, Oxford University Press, 1993.) Suppose this is correct. One could still contend in a principled way that there is an explanation for *every fact other than those for which there is an explanation of why there can be no explanation of those facts*. If an event is an outcome of a nondeterministic causal system, there will be no explanation of why it occurred rather than any of the other possible outcomes of the system (at least in many cases). But there *is* an explanation for why we cannot explain such contrastive facts that involves the character of the system in question. By contrast, the philosopher who maintains that the existence of the universe is a brute, inexplicable fact cannot, by the very nature of his position, explain why such a fact is unexplainable. (I thank an audience at Western Washington University, and Hud Hudson in particular, for helpful

discussion of this point.)

16. This example was introduced to philosophers by Michael Scriven in his "Truisms as Grounds for Historical Explanations," in P. Gardiner, ed., *Theories of History* (New York: Free Press, 1959), pp.443-75. For discussions of various issues concerning the bearing of indeterminism and relative probabilities of possible outcomes on causal explanation, the reader may consult the articles found in David-Hillel Ruben, ed., *Explanation* (Oxford: Oxford University Press, 1993).

17. These cover all the possibilities for which I am able to conceive a coherent model. While hybrid versions could be developed, as I note below in the text, this fact does not bear on the cogency of my argument.

For both *Logos* and *Chaos*, I ignore the issue of whether the fount of being acts temporally or timelessly, as this issue seems to me to be orthogonal to issues of concern here.

18. Nothing in my argument in the text for the preferability of *Logos* impugns speculative ideas in physical cosmology involving many universes. For all I've argued, there may be a spacetime foam or inflaton field that generates our universe among others, whether in chancy or deterministic fashion. It's just that these are not suitable candidates to fill the role of *Chaos*. They themselves have highly particular features inconsistent with the unity of nature a necessary being would have, and so if such conditions antedating the Big Bang exist, they are among the contingent existents which an NB's causal activity would explain.

19. Bill Hasker suggested this route to me.

20. For an accessible summary, see John Leslie, *Universes*, Routledge Press, 1989, Ch.2.

21. See, for example, several of the discussions in Neil Manson, ed., *God and Design*, Routledge Press, 2003.

22. As Robert Koons notes in "A New Look at the Cosmological Argument," *American Philosophical Quarterly* 34 (1997), 193-211.

23. I thank Brian Leftow for urging me to consider this possibility.

24. The name you favor, of course, depends on which side of the singularity you're situated on. This idea is associated with John Wheeler. See C.W. Misner, K.S. Thorne, and J.A. Wheeler, *Gravitation* (San Francisco: W.H. Freeman, 1973), Ch.44.

25. I thank Steve Davis, Bill Hasker, and members of my graduate seminar at Indiana University (especially Travis Brooks and Daniel Cheung) for useful criticisms of previous versions of this paper. Its origin is a series of lectures on natural theology that I gave at the University of St. Andrews in 1997, and I thank Tim Kenyon and John Haldane for vigorous discussion at those lectures and Brian Leftow for extensive correspondence on them.