

A naturalist cosmological argument

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Abstract: I rebut a ‘naturalist’ counter to Swinburne’s Bayesian cosmological argument, based on the supposedly superior simplicity of naturalism.

Richard Swinburne invented the Bayesian cosmological argument for God’s existence. We all know the story: take the existence of the universe as datum. Consider how likely this is on theism and its alternatives: their explanatory power. Consider the prior probabilities of theism and its alternatives. Let Bayes’s theorem guide theory-comparison. Theism, Swinburne argues, comes tops in this comparison, and so the existence of the universe is evidence favouring theism. Swinburne thinks that theories’ prior probability is determined by their fit with background knowledge, scope, and simplicity.¹ I’d add economy of ideology. In the cosmological argument, fit with background knowledge drops out. Where the explanandum includes everything natural, the only relevant background knowledge is necessary truth, and as long as theories do not conflict with necessary truths, they all fit with them equally well. Simplicity is a theoretical virtue we can assess *a priori* (as is ideological economy). So Swinburne’s claim is that the existence of the universe confirms theism more than its alternatives because theism has the best combination of *a priori* theoretical virtue, scope, and explanatory power.

Graham Oppy has argued recently that the universe’s existence confirms naturalism more than theism. His argument is essentially this. Consider the following possible shapes for the overall causal order:

REGRESS. The regress of causes had no beginning and is not circular.

CONT/CONT. The regress of causes began, in a contingent state of a contingent being.

CONT/NEC. The regress of causes began, in a contingent state of a necessary being.

NEC. The regress of causes began, in a necessary state of a necessary being.

On each, Oppy claims, naturalism and theism explain ‘the fact that there is a domain of natural causes’² equally well. Part of his point is that both fall short in the same way. Naturalism cannot explain the existence of all the natural causes. So it leaves something unexplained. Theism may explain all the natural causes, but cannot explain the existence of all the divine causes. So it leaves something unexplained, and it’s the same kind of something: the existence of all causes doing the ‘ultimate’ explaining. So (says Oppy) theism makes no progress on naturalism:

Suppose that I think that there is a problem with the idea that the earth just hangs in space. I postulate a large elephant for the earth to rest upon. I claim that I have an explanation of why the earth stays where it is: the elephant stops it from falling. You say: hang on a minute. It’s true that, on your view, there is an explanation of why the earth doesn’t fall. But, on your view, what stops the elephant from falling? If the postulation of the elephant is intended to explain why the earth doesn’t fall, then there is a sense in which you win a battle: you have an explanation of (that). But, overall, you’re doing worse: because the question that arose for the earth now arises for the elephant. So there is just as much that *isn’t* explained on your view as there is in mine, and yet you’ve introduced a new kind of entity for the purpose of removing an explanatory gap from my view.³

I think much depends on the size of the elephant. Suppose it’s *really* big – big enough to fill all the space beneath the earth. Then nothing supports the elephant, it needs no support, it can’t fall, but it supports the earth. If asked why we should not just say that about the earth, the answer, of course, is that it’s not big enough. But I digress. Back to Oppy: no matter which shape the causal order has, Oppy thinks, naturalism wins on *a priori* theoretical virtues:

neither naturalism nor theism fits better with the data or (has) greater scope or (explanatory) power, (but) naturalism scores better than theism on . . . theoretical commitment . . . naturalism is committed to one kind of entity (the natural), one kind of external relation (the spatiotemporal), one kind of causation (the natural), one kind of non-topic-neutral property (the natural) . . . whereas theism is committed to two kinds of entities (the natural and the supernatural), two kinds of external relation (the natural and the supernatural), two kinds of causation (the natural and the supernatural), two kinds of non-topic neutral properties (the natural and the supernatural) . . .⁴

Brute, unexplained facts at the fundamental level are the bump in the rug. Naturalism has this bump. As Oppy sees it, theism shifts the bump but does not flatten it. Naturalism does its bad job with the bump more cheaply than theism does its job. Naturalism is more parsimonious. So naturalism wins. Overall, the universe’s existence confirms naturalism more than theism.⁵

I now engage Oppy. Owing to space constraints, I suppress much of what I’d like to say about REGRESS and CONT/CONT. Instead, I display advantages of putting the fundamental-bruteness bump where theism puts it. It is (so I argue) a bit less bumpy if God is under the rug. That there is a bump either way does not entail that it is equally large or equally badly placed. And (so I argue) it is worth paying a bit to have a smaller bump. I also contend that theism has an edge on naturalism on CONT/NEC and NEC.

What's brute?

If we're never going to get a world-picture with nothing fundamental and brute, says Oppy, the key to winning is parsimony. But another key is surely having *less* that is fundamental and brute. If fundamental bruteness is bad, the less of it the better. I now argue that theism has less, by comparing what's brute on my favourite version of theism and on naturalism.

On theism, God exists. This is theism's ultimate brute fact.⁶ On CONT/CONT, CONT/NEC, and NEC, naturalism's ultimate brute facts are the existence of whatever natural being and state they refer to. Plausibly the being is the universe. On REGRESS, I think, the ultimate brute fact is the existence of the universe – that the universe ever exists. If it is, and if the existence of the universe is Oppy's 'fact that there is a domain of natural causes',⁷ then far from theism and naturalism having equal scope, naturalism cannot explain the universe at all, since on naturalism it is brute on all shapes for the causal order.⁸ Let's first see what naturalism can say about this given REGRESS.

REGRESS

Let 'the universe' denote the 4D whole composed of all natural causes there ever are. On REGRESS, this does not terminate pastward. Rather, before every finite slice of the 4D whole along its time-axis – henceforth time-slice – there was another of equal length. I now argue that no time-slice of the universe explains the universe's ever existing. There are three sorts of slice to appeal to:

- a. a proper part not including everything before some time,
- b. a proper part including everything before some time, and
- c. the improper part.

I now argue that none can in fact explain it.

Let's first consider (a). What occurs now is one (a)-type slice of the universe.⁹ Its occurrence does not explain the universe's existence. For there was a slice before now. As this is so, the universe existed before now. So the now-slice came too late to explain the universe's existence. At best some (a)-type slice before the now slice explained this. But on REGRESS, any such slice is preceded by another. If we never get to a first (a)-type slice, we never get to something that isn't too late to explain the universe's existence. So on REGRESS, (a)-type proper parts can't explain this.

Let's next consider (c). I submit that the whole series of slices can't explain the universe's existence either. For if it takes the whole series to explain this, the explanation is not present till the whole series is complete. Suppose first that the future is unreal. Then if the series of natural causes is infinite forwards, on (c) the universe's existence is never explained: it is explained only when the series is complete, and the series never is. If it is finite forwards, then on (c) this is not explained till the end of time. The universe existed before that. So if the

future is unreal, the whole series is too late to explain it, because the series is not whole at all or not whole till too late. If on the other hand the future is real, and so the whole of time is just tenselessly 'there', it was true before any given point in time at which the universe ever existed, and what exists later is too late to explain that. At every t , the series up to t cannot explain anything that exists or occurs before t , because it can't do the work 'till the series has reached t ' – and on REGRESS, for any t , the universe existed before t . Finally, using a (b)-type proper part, we would appeal to all of the series up to some time t to explain the universe. But what I said about (c) has a parallel here: on REGRESS, no matter what (b)-type part we pick, the universe existed before that part was complete. So on REGRESS, it seems, slices can't explain the universe's existence.

The rest

Stephen Maitzen and Richard Gale suggest a different naturalistic way to explain the universe:

1. Penguins exist.
2. If penguins exist, the universe exists. So
3. The universe exists.¹⁰

But while (1) and (2) entail (3), I don't see how they are supposed to explain (3). As the universe includes penguins, the existence of the universe includes the existence of penguins. Penguins are part of what we find puzzling, part of the problem. So they can't be part of the solution: they can't explain this. Further, on REGRESS, there is again a timing difficulty: there was a universe before penguins existed. There was one before any other sort of natural object existed, unless for every spacetime there really was an initial singularity. But suppose that we reason

4. The singularity exists.
5. If the singularity exists, there ever was a universe. So
6. There ever was a universe.

This cannot explain (6). For when the singularity exists, what makes (6) true is just the existence of the singularity. At that time, (4) and (6) have the same truthmaker. No truthmaker can explain itself. If there are many spacetimes, this is true in each of them. The fate of (4)–(6) has implications for the rest of the shapes. On every shape but REGRESS, there is a first slice of nature. One might wonder whether *it* could be the reason there are slices at all. If it's the first slice, perhaps it can explain the existence of all the rest. But it could not explain its own existence: certainly nothing can naturally cause itself to exist. If the first slice does not explain its own existence, then ever after, it's too late to explain the universe's existing. For it existed, unexplained, when the first slice alone existed. So ever after, it is still

unexplained: any other slices are too late to explain it, for reasons we've seen. So it seems that slices just can't explain the universe, no matter what shape we pick.

Appeal to necessity

Some might say that my argument is irrelevant, because I've looked in the wrong place. It's not that any slice explains the universe's existing. Rather, naturalists should say that the universe exists necessarily, and argue that its necessity explains its actuality. This move is available on all shapes but CONT/CONT.

I think the move fails. For it is not plausible that

N. Necessarily, the universe exists.

We have powerful intuitions that physically empty worlds are possible. The Subtraction Argument reinforces these.¹¹ Most naturalists accept these intuitions, and so reject (N). For them, the universe's existing is instead a brute contingent fact. For most naturalists, then, the move *via* (N) is not actually an option. Still, let's pursue it. The naturalist who wants to recommend (N) despite intuition has to provide a plausible story about how the universe gets to be necessary. So the basic question (N) raises is where the necessity comes from.

For Oppy, it falls out of modal metaphysics. Oppy's modal metaphysics bases possibilities on the powers of concrete existing natural things: to a first approximation, on this view, possibly P just if there are or have been natural things with the power to bring it about that P.¹² Supposing for simplicity that our spacetime and its contents are all that exists, let's see how Oppy's theory looks. First, there was the Big Bang. Perhaps things unfolded deterministically for a very short time. Then came the first point at which indeterminist – 'chancy' – powers had a chance to operate, because quantum theory reared its head. At that point, there were many ways natural powers could push history, and so many ways the universe could unfold. So possible histories branch off in different directions at that point, with further branchings along each branch wherever chancy powers have a chance to operate. We can picture possible worlds as paths through a branching tree. The tree branches whenever objectively chancy natural powers have a chance to act. There is a branch for each possible outcome of every possible use of these powers. Each world is one complete never-backtracking journey through the tree, from as far back as the past stretches to as far future as the tree goes along some branch. This yields (N): given the conservation laws, the universe always exists on every path through the tree, and so it exists necessarily.

Oppy's views do yield (N), but it comes at a steep price. On his account, there could not have been other natural laws: natural laws cannot change, and so are constant over all branches of Oppy's tree. Nor could there have been a different total amount of mass-energy: since the laws include conservation laws and cannot alter, whatever the amount is, it could not have differed. But it is strongly

intuitive that the laws and the amount are contingent. Further, on Oppy's view, necessarily, every possible world contains some natural thing that actually exists. For since all of possibility is a branching tree, at some point any future-to-past path through the tree hits a branch that has been actualized. Further, once a future-to-past path hits an actualized branch, it stays with actuality. It could break away again only if it could change direction and proceed futureward. But no possible history has the resulting shape. So on Oppy's view, necessarily, every world contains some stretch of our actual natural past. On REGRESS, further, it would be an infinite stretch. It is hard to see why we should accept any of these things.

Oppy's modal metaphysics also yields a necessary time-slice of the universe if the universe began. On his view, if the universe had an initial state, then all possible histories branch from it at the first point at which chancy causes have a chance to act.¹³ So the initial state is a time-slice of the universe in every possible world. Everything prior to the first chancy point counts as necessary. But consider this first, necessary time-slice. Unlike God, nothing about its nature explains its necessity. It is just as physical, natural, etc. as the later, contingent slices. The same laws govern it. It is of the same ultimate stuff, fields, or whatever. So if what succeeds it exists contingently, it should too. What is equally physical, natural, etc. should be equally contingent. Given its nature, then, we strongly expect that it should be contingent. It is highly unintuitive that it not be. The first bit is 'forced' into necessity solely by its position in the modal structure, at the origin of the tree. So turning this first slice necessary counts against Oppy's view (and limits its use to REGRESS and NEC¹⁴).

Something related applies to the universe. Because even its first slice should be contingent, its parts are always entirely the sort of thing that should be contingent. This creates an expectation that the whole be contingent. Now 'the parts are all F, so the whole is F' is an inference that can fail. Not every property of parts must transfer to the wholes they compose. But still there is some force to the expectation in the case of contingency. When the inference fails, we can usually see why. So we incline to say that the inference works save where we can see why it doesn't. We can see no reason for it to fail in this case.

Further, Oppy's account might well generate Spinozistic modal collapse, on any causal 'shape' it is compatible with. If Oppy's theory is true and determinism is true, the actual world is the only possible world: there are no chancy causes, so there are no branches off the tree of actual history. (The tree is a log.) So the actual world metaphysically necessarily obtains. Your having had one more cornflake for breakfast this morning has the same modal status as a contradiction. There is no contingency – only necessity. This is modal Spinozism. Thus, on Oppy's metaphysics, determinism entails modal Spinozism. On Oppy's metaphysics, then, we should take modal Spinozism precisely as seriously as we take determinism. Now determinism might well be true.¹⁵ We do not know what the final theory reconciling GR and QT will look like, but it might well be deterministic,

like GR, rather than indeterminist, as on the most popular readings of QT. This is so not least because less-popular determinist readings of QT are available. As determinism might well be true, Oppy's account might well generate Spinozist modal collapse. This sets up a problem. Let me spell the problem out.

Given what I've just said about the final theory, GR and QT, we should see determinism as a very live option. But surely Spinozism is not a live option. Our ordinary modal thinking overwhelmingly supports the claim that there is contingency. Most of our ordinary moral practices suppose it. That there is no contingency is a proposition in which we have and on our ordinary modal epistemology should have very low credence: say, arbitrarily, .05. This has implications for other credences. If we should have a not-very-low credence in determinism and a very low credence in modal Spinozism, then since the conjunction of determinism and Oppy's metaphysics entails Spinozism, we should have a very low credence in Oppy's metaphysics. Suppose for illustration that your credence in determinism is .5: you're just agnostic about it. Then if your credence in modal Spinozism is .05, since Oppy's metaphysics plus determinism entail Spinozism, you should have a credence in Oppy's metaphysics that would yield .05 when multiplied by .5: .1.

Thus unless Oppy can convince us that modal Spinozism is a great deal more credible than we think or that determinism is a great deal less plausible than we should think, almost all of us should view his modal metaphysics as virtually certainly false. For suppose that a *very* convinced libertarian assigns determinism a credence of only .15. Even so, given .05 credence in modal Spinozism, he or she should assign Oppy's modal metaphysics a credence of .33.

A different sort of naturalist modal metaphysics could get (N) without risking Spinozism. Suppose we start from Lewis's view that possible worlds are concrete wholes and add (as Lewis did not) that none of these contain anything non-natural (spooks, gods), that every world has some conservation law and that every Lewis-world is a counterpart of the very universe that actually exists. Then every world is a concrete whole consisting entirely of natural things; at all times in all worlds, something natural exists; and so at every time in every world, the universe exists. Well, one can say it. But the counterpart claim is not slam-dunk obvious, it does not seem necessary that there be any conservation law, and Lewis's view is desperately implausible. Lewis's view does not have to yield (N). Naturalists convinced of our universe's contingency can easily express this within Lewis's metaphysics. They can argue that some Lewis-worlds are not counterparts of ours, or that vacuums in other Lewis-worlds can do duty for empty possible Lewis-worlds.

E. J. Lowe's views suggest a different naturalist route to (N): assume that some abstract objects exist necessarily and yet depend for existence on there being some natural objects, then argue – though how? – that any possible maximal sum of natural objects would be the same universe as our own.¹⁶ But this position would not do what we're asking. The naturalist, I've said, has to tell us why (N) is true, and so tell us why there necessarily are natural things. If the abstract depends on the concrete, it cannot explain the necessity of the concrete. And

the Lowe road contains nothing else that explains this. Further, necessary abstracta would not count as natural on many parsings of naturalism, and so this view is not available to many naturalists. That problem arises also for attempts to derive the natural world's existence from Platonic laws, e.g. Marc Lange's recent suggestion.¹⁷

Thus it does not seem to me that naturalism has a good way to get (N). Further, (N) is not what most naturalists expect of nature. Even to naturalists, (N) would be surprising – that is why most naturalists deny it. This suggests that (N) is implausible *modulo* naturalism. That is, the collective judgement of naturalist philosophers is that (N)'s probability on naturalism is fairly low.

So much for (N). There is also a second problem with the necessity-explains-actuality move. As I argue elsewhere, necessity does *not* explain actuality.¹⁸ Further, Oppy's views in particular seem an ill fit for the claim that necessity explains actuality. (N), on his view, winds up being true at any time because there are or have always been natural things and (to a first approximation) none has or had the power completely to annihilate nature or bring something about which can. If this is the right parsing, then for Oppy, (N) presupposes a universe and so cannot explain it.

A last try: on Oppy's modal theory, on NEC, history necessarily has the first slice (s) it has. One might wonder whether this gets us (N): perhaps if a slice of the universe is necessary, the universe is. I submit, though, that here again, (N) presupposes the universe – it's because the universe actually has its first slice(s) that it/they get jumped up to necessity by the modal theory. So (N) still can't explain the universe.

As far as I can see, then, naturalists just can't explain the universe's existence. It is their ultimate brute fact on REGRESS and *an* ultimate brute fact on the rest. Theism clearly can explain it on all 'shapes'. So no matter which 'shape' causal reality has, theism offers an account and naturalism cannot. True, neither can explain its ultimate. For no fact is self-explanatory, there can be no more basic fact to explain the most basic fact of all, and as I argue elsewhere, even if either is necessary, necessity does *not* explain actuality.¹⁹ But theism beats naturalism on scope of explanation of the natural. Further, Oppy concedes it equal explanatory power. He may concede this because he thinks that it does not matter – that the key thing is that theism loses on parsimony. Now perhaps a narrow win on scope offsets a narrow loss on parsimony on its own. But we needn't consider this. It surely at least helps offset this loss, and I now argue that another thing helps offset it. Theism and naturalism do not in fact tie on ultimate bruteness, on my favourite version of theism.

Fundamental brutality

My favourite theism is the perfect-being sort. Perfect being theism takes it as given that God is perfect. This is brute relative to there being a God in the way

there being cats is brute relative to there being animals: it is brute relative to the genus what species there are. There being a universe run by quantum theory and general relativity (QT + GR) is brute in the same way relative to there being a universe. So theism and naturalism tie on this kind of brutality.

On perfect being theism, less is brute at the fundamental level than on naturalism. By 'fundamental level' I mean the level of entities whose presence *as a kind* is not explained in any way – that is, the level on which 'why any of *these*?' is unanswerable. On theism, only God is fundamental. For naturalism, what is fundamental is what is fundamental in the natural realm. That is whatever microphysics says it is. I now argue that on perfect being theism, it is not brute how many fundamental entities there are, while this is brute on naturalism, and that less is brute about the nature of fundamental entities on perfect-being theism than on naturalism.

The number of fundamental entities

On perfect-being theism, God is alone at the fundamental level of reality. Everything else depends on Him asymmetrically in some way and so is less fundamental. On perfect-being theism, it is not brute how many divine beings there are. That a perfect being would be perfect settles and explains the number there are, if there are any: there are good perfect-being arguments that there can be only one.²⁰ So on perfect being theism, it is not brute how many fundamental entities there are. The perfect being's nature settles that.

The natures of natural beings do not settle how many there are.²¹ This is true at any level – the nature of giraffes does not settle their number – but in particular at the fundamental, the ultimate microphysical. In any science we've seen so far, boundary conditions like the amount of mass/energy are just brute. Our current most fundamental theories, GR and QT, do not dictate this number, and it would be sheer speculation to say that the true ultimate laws do. Further, given GR, QT, and the actual amount of mass/energy, it is brute how that amount is divided microphysically: those things do not dictate the Standard Model. It would be sheer speculation to say that the true ultimate laws beneath GR and QT, whatever they are, dictate whatever the true story is about particles. So if there are basic natural particles, then given the current state of physics, on naturalism it is brute how many fundamental things there are.

Something similar turns out true if there are no basic particles. If there are no basic particles, but instead particles are composed by smaller particles *ad infinitum*, still the number of particles at any level of decomposition will be brute relative to the total quantity of mass-energy. If this is how things are, no microphysical entities are fundamental, but still, to the extent that we can make a distinction between micro – and macrophysics, there will be fundamental and non-fundamental *realms*, and the numbers at any level in the fundamental realm are brute. If ultimately it's all fields, not particles, still there will be a corresponding

bruteness in whatever facts about fields have convinced so many for so long that there are particles down there. Thus in any version of naturalism for which micro-physics is fundamental, the number of fundamental entities is brute. By contrast, again, it is not brute in perfect being theism.

The natures of fundamental entities

I now turn to the natures of fundamental things. I set out a stronger and a weaker version of what perfect being theism can say about this, and compare each with naturalism.

On the stronger version, given ‘perfect being’ as the basic description of God’s nature, plus only necessary truths, perfect being theology (PBT) can in principle deduce all necessary intrinsic distinctively divine properties of all divine things – all fundamental things.²² There are valid perfect-being arguments from suitable premises for all of these. We are in some cases unsure which properties PBT delivers (e.g. atemporal vs temporally everlasting), because perfect-being thinkers have differing intuitions about some matters. But whichever property is correct, there is in fact a sound perfect-being argument for it. It’s just that we are unable to say which of the competing arguments it is. Putting it another way, no matter what the right answer, there’s a *reason* God has that property. So it is not brute that God has this property. It is explained. We don’t know which explanation is correct, because we’re not sure which property He has, but whichever it is, there is one.²³

Elsewhere I discuss the possibility that perfect being thinkers be left with ties among candidate perfect-being attributes, despite all that PBT can do.²⁴ On the stronger claim for PBT, any such ties are due to unclarity, errors, or gaps in our intuitions. They are not because no tied attribute is best. If there were a perfect being, it would in fact have necessary distinctively divine intrinsic attributes. It would have resolved all such ties, in effect. On the stronger claim for PBT, the resolution is not arbitrary, a sort of coin-flip by reality. Rather, it is e.g. better to be atemporal, or to be temporal, or to be something only an atemporal being can, or only a temporal being can. Whichever it is, that’s how a perfect being would be, *because* it is better. Whichever it is, it isn’t brutally that way, and a better-equipped perfect being thinker could see it.

If the strong claim is false, some necessary intrinsic distinctively divine attributes aren’t accessible to perfect being reasoning, even in principle. As far as perfection goes, God *just happened to be* (say) temporal, or atemporal – as far as perfection goes, it could just as easily have been the other way, for it did not matter at all to God’s perfection which way it turned out. My intuitions – and owing to space constraints, I must settle for just expressing them – rebel at this. An atemporal and a temporal God would be very different. How could differences so great not matter? But if my intuitions err about this, PBT can make only a weaker claim, that it can in principle deduce a great many distinctively divine attributes: that

these are not brutally attributes of a perfect being, even if others are in effect outputs of a coin-flip and so brute.²⁵ In the current state of perfect-being debate, these are the serious conflicts: omnipotent vs necessarily morally perfect, temporal vs atemporal, and within temporalism, the possibility and ‘mechanics’ of foreknowledge of future creaturely free actions.²⁶ Almost all perfect being thinkers would resolve the first – if there really is a conflict – in favour of necessary moral perfection. So really, it’s just the latter two. On the weaker claim, then, beyond the basic claim that God is perfect, apparently the bruteness in the nature of the fundamental extends at most to these things.

Now to naturalism. As perfect-being theism starts from a basic description of the fundamental supernatural thing, naturalism should start from a basic description of the fundamental natural things. Fundamental physics provides this. But it is not clear that one can in principle deduce all or even many necessary intrinsic distinctively X properties of the fundamental natural things, the Xs, from some basic description plus only necessary truths. Suppose for instance that the basic particles include quarks. To my knowledge, at least, so far we have not found a basic physical property whose exemplification entails that there are six kinds of quark. Quarks’ distinctive intrinsic properties – let’s suppose they’re necessary and intrinsic, just for illustration – include charge, mass, colour, and spin. To my knowledge, at least, so far we have not found a basic physical property from which one can deduce these, or a reduction of the rest to some one of these. There is no reason in naturalism to expect otherwise. Why *shouldn’t* the brute basic natural properties of basic natural things be many, not one? So if the strong claim for PBT is correct, perfect being theism seems to have the edge here in the present state of science, and it may well continue to. And plausibly it does on the weaker claim too.

Oppy could try to even the bruteness score by pointing to divine creative volitions. For every brute fact about the natural world, on theism there is an equally brute divine intention that it be so. One might therefore claim that theism ‘doubles’ the brute facts there are on naturalism. I reply that it does not. On theism, these facts about the natural are not brute. The corresponding divine intentions causally explain them. If the intentions are brute, they do not add to reality’s overall bruteness. They merely relocate it.

I think that some of God’s particular intentions are indeed brute. I think that ultimately, God ‘just picks’ some features of the universe, without a full sufficient reason for His pick – e.g. making n stars rather than $n + 1$. Even so, His beliefs and desires may make these less brute than the corresponding natural facts would be on naturalism. Suppose that I’m eating a peanut-butter and jelly sandwich. You ask why. I say ‘I was hungry’. That doesn’t tell you why I intended to eat a PB&J rather than something else, but it does tell you why I intended to eat. My intending to eat that particular sandwich is now less mysterious than it was; one aspect of that is fully explained, namely that I intended to eat. God intended a universe with features 1, 2, etc. which are hospitable to our sort of life. Why 1, 2,

etc.? Suppose I say that He wanted to cause our sort of life and so made the universe hospitable to it. That doesn't fully answer the question, but it answers an aspect of it. It explains God's having some intention to create some hospitable features, though not the intention to create 1, 2, etc. in particular rather than other hospitable features. That seems a genuine bruteness-reducer. I don't see that naturalism can do the same with initial cosmic conditions, just because they are initial. So even if there are as many brute particular divine intentions as there would be brute particular natural facts on naturalism, theism can make some of them *less* brute.

When we fill the views out, less is brute about God on perfect being theism than about the fundamental natural on naturalism. Having less brute at the fundamental level is a theoretical virtue. (It may even be one reason we think parsimony important.) Here theism is ahead. So far, then, it seems that perfect being theism can explain more of the natural than naturalism can, with equal explanatory power (as Oppy concedes), and leave less brute at the fundamental level in doing so. Theism's extra ontology buys a lot. Explaining what puzzles us and reducing fundamental brutality may more than offset its cost. I know no algorithm for weighing these things, but to me, at least, it seems so far that, overall, theism gets no worse than a tie. I now argue that on two of Oppy's 'shapes', it is ahead. If this is so, then on balance, across all branches, theism is ahead.

About NEC and CONT/NEC

I now look briefly at two branches of Oppy's argument. NEC and CONT/NEC appeal to a necessary being in both naturalist and theist versions. Here perfect-being theism has an edge. Necessary existence is what most philosophical theists these days expect of God.²⁷ There is no surprise in the claim that God exists necessarily. We don't expect that He wouldn't, and a large body of argument, broadly under the heading of PBT, suggests that He would.²⁸ So the epistemic probability of divine necessity on theism plausibly is high: the convergence of the judgments of the relevant community suggests this. For the same reason, the epistemic probability of (N) on naturalism plausibly is low. Most naturalists don't think there *are* any natural necessary beings. So they would say that they cannot field a candidate on NEC and CONT/NEC; they would say that far from matters being equal here, only theism can offer an explanation at all. Again, the convergence of the judgements of the relevant community is the best gauge we have of epistemic probability in any sense not relativized to a given individual. This means that theism fields a candidate on NEC and CONT/NEC more plausibly *modulo* theism than naturalism does *modulo* naturalism. One way to think of this is: the disjunction of ways for naturalism to generate a necessary being above, plus some further vague bit of credence attached to there perhaps being some unknown other naturalist way to get one, is for the average naturalist less plausible than God's being necessary is for the average philosophical theist.

Oppy claims that naturalist NEC and CONT/NEC are more parsimonious than their theist rivals, and so win. But parsimony is not the only *a priori* theoretical virtue. Another, here, is whether their necessary beings are *plausibly* necessary. Even if naturalist NEC and CONT/NEC are more parsimonious, still, because (N) is implausible, one might reasonably think that on balance, one's credence in naturalist NEC or CONT/NEC should not be higher than that for their theist versions. To see this, let's return to Oppy's modal theory.

Let me set out some claims about *a priori* or ultimate prior credences. To begin, we should endorse

7. $\text{Pr}(\text{there is objective contingency}) = \text{very high}$.

For much of our reason to believe in metaphysical contingency is *a priori*, and it seems quite strong. Thus if Oppy's modal theory plus determinism imply that there is no objective contingency, we should endorse

8. $\text{Pr}(\text{Oppy's theory and determinism}) = \text{very low}$.

Now *a priori*, there seems no more reason to believe than not to believe that the world is determinist. This matter is simply empirical. *A priori*, we have to be agnostic about it. We can parse agnosticism either as a narrow vaguely bounded zone centred on .5 credence, or as inability to assign any determinate credence. If we do not assign a proposition an ultimate prior probability, we must remain agnostic about that proposition no matter what evidence crops up, given the Bayesian maths. So we must express ultimate prior agnosticism by a number unless we have good reason to think that a proposition *should* be immune to credence-revision on evidence. Our opinion about determinism, whatever it is, should not be immune to evidence. So we should endorse

9. $\text{Pr}(\text{determinism}) = .5$.

Given (8) and (9), the maximum value we could assign $\text{Pr}(\text{Oppy's theory})$ could not be much over .5. At best, then, *a priori*, we ought to be agnostic about Oppy's view. If the case against modal Spinozism is *a priori*, then in fact, *per* earlier argument about Spinozism, we should be fairly sure *a priori* that Oppy's view is false.

Oppy's theory, stripped to its barest bones, is that

10. Naturalism is true: all concreta compose a naturalist universe, and
11. Absolute modalities are based on the powers of concrete entities.

It's hard to see how we could be more than agnostic about (10) *a priori*, and if I am agnostic on (10), I can at best be agnostic on ((10) and (11)). Perhaps we should even lean against (10). Considering all the sorts of non-natural things imagination can come up with *a priori*, one would think *a priori* that there's a pretty good chance that the actual world would include at least one of them, just in virtue of

an *a priori* plausible principle of random recombination for the possible and the fact that just *a priori*, we have no reason to consider one possible world more likely than another.²⁹

Perhaps *a priori* we might at best lean a bit toward (11) – say, perhaps, a .7 credence, based on general *a priori* metaphysical arguments. But if we have to be agnostic about (10) *a priori*, our credence in ((10) and (11)) should perhaps be half of that, or a bit less if we should lean a bit against naturalism *a priori*. And that's the most credence we should have *a priori* that there is a natural necessary being for Oppy's reasons: again, if our credence should be as the case against modal Spinozism dictates, it could well be lower. I don't think we should add that much to our credence in (N) by considering the Lewis or Lowe routes to one, for reasons given above, and given the general naturalist doubt about (N) – again something one could arrive at *a priori*, by considering what sort of thing a natural universe would be – we shouldn't add much to it to allow for some-other-way-we-know-not-what of generating a natural necessary being. The resulting credence, in short, seems likely to be somewhat short of .5. This is what we should expect given general naturalist doubt about (N), which is (again) largely on *a priori* grounds.

Now just what our ultimate or *a priori* credence in theism should be is controversial. If there is a sound *a priori* argument for God's existence, it should be 1. If there is some inconsistency in the concept of God which no amount of tinkering can remove, it should be 0. Both views have fans. I thus propose to be irenic. Let's say that there is no *a priori* proof or disproof of God's existence. Let's accordingly say that *a priori*, we just have to be agnostic about this, and parse this too as a .5 credence.³⁰ Now for reasons I've suggested, it is highly likely *a priori* on theism – near 1, I'd say – that there is a necessary being. If one's ultimate prior for theism should be around .5, and *a priori* it is near certain on theism that God is a necessary being, then one's ultimate prior for a divine necessary being should be not much below .5. So it seems likely that one's ultimate prior for a divine necessary being should be little below .5, and plausible that one's ultimate prior for a natural necessary being should be a bit further below .5. Further, even if you're Swinburne, and don't find it likely on theism that there is a necessary being, you might well legitimately think this should be more likely on theism than on naturalism. So even Swinburne should say that our prior for theist NEC or CONT/NEC should be higher than that for Oppy's naturalist version. Nor should one think that I've overlooked the parsimony differences. Even if a theist ontology contains a bit more than a naturalist one, it is more likely to contain a necessary being than a naturalist one. That matters more in this context to our probability-assessments, if I'm right that despite its slightly greater complexity, we should be agnostic about theism *a priori* and no more than agnostic about naturalism *a priori*.

Now one might reply to this as follows.³¹ Perhaps for a naturalist,

12. $\text{Pr}(N)$ is low.

Still, perhaps for naturalists,

13. $\Pr((N)/\text{there are a natural universe and a concrete necessary being})$ is high.

One might contend (13) rather than (12) tells us how naturalists would find the priors of naturalist NEC and CONT/NEC – that given that there are a natural universe and a necessary being, naturalists would give a lot of credence to there being some perhaps-unknown way the natural universe winds up necessary. I reply that given the naturalist reasons for (12), it's not clear that a naturalist would be entitled to (13). The arguments for (12) lose no force if we are told that there is a necessary being. Every part of the universe should be contingent whether or not we suppose a necessary being, and this is just as good a reason to doubt that the universe is a necessary being if we do. The Subtraction Argument loses no force if we suppose that there is a necessary being. And so on. Further, if it's naturalism that might tempt naturalists to think otherwise, we should remind them that we're considering ultimate priors here, and so strictly only the ultimate prior of naturalism could legitimately be a factor. That surely can't be higher than .5, and a .5 probability is no reason to adjust our assessment of (12) or endorse (13). Further, even if we waive all this, given the reasons for (12), the naturalist's value for $\Pr((N)/\text{there are a natural universe and a necessary being})$ still almost has to come out lower than the theist's prior for (God is necessary/there are a God and a concrete necessary being). For the latter prior is very plausibly 1: at any rate, all the arguments I can recall against God's being necessary which are not equally arguments against His existence are equally arguments against any concrete thing's being necessary, and if we suppose a concrete necessary being from the outset, we take it as given that none of those arguments is any good. (By contrast, the arguments against a natural necessary being are specifically against that, not against any concrete thing's being necessary.)

Oppy concedes theism explanatory power for the universe's existence equal to naturalism's – as he should. If I'm right about scope above, and the *explanandum* Oppy has in mind is just that, the existence of the universe, then perhaps theism's explanatory power is rather greater, for naturalism can't explain this at all. I've now argued that necessary being theism has a somewhat higher ultimate prior than necessary-being naturalism. If I'm correct, then on NEC or CONT/NEC, in Bayesian terms, theism beats naturalism on the evidence of the cosmos, unless naturalism has a significantly more plausible way to come up with necessary beings.

I sum the score up this way. Theism can explain more about nature than naturalism can. It can explain what naturalism cannot explain at all: it has a wider scope, and of the two, only it can explain the universe's existence. Thus it can be confirmed to some degree by the universe's existence, and that cannot confirm naturalism. Further, theism leaves less brute at the ultimate level than naturalism

does. If theories ought to minimize ultimate-level bruteness, then, theism seems to have the better combination of bruteness, scope, and (with respect to the universe's ever existing) explanatory power. Finally, on NEC or CONT/NEC, theism provides a necessary being more plausibly relative to its own ontology than naturalism does on its own ontology, and that should also affect our comparison. While (again) I know no algorithm for weighing all these things, I suggest that these wins more than offset theism's extra ontology. Despite invoking God, theism comes out ahead on the evidence of the cosmos. The score on Bayesian cosmological arguments remains what Swinburne said it was.³²

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Notes

1. Swinburne, (2004), 53.
2. Oppy (2012), 297. Oppy speaks of a 'domain of natural causes' where most would be content to say 'universe', in an inclusive sense not necessarily limited to our own spacetime manifold (*ibid.*, 294).
3. Personal correspondence.
4. Oppy (2013a), 53. See also Oppy (2013b), 19.
5. Oppy (2012), 294–299.
6. Leftow (2012), 51–54.
7. *Per n.* 2, I think it is.
8. Another scope comparison: neither naturalism nor theism explains the existence of all divine causes or all fundamental causes, but theism explains the existence of all natural causes. Again, advantage theism.
9. Relativistic complications about 'now' would not affect my argument, so I ignore them.
10. Gale (1991), 266; Maitzen (2013), 254.
11. For a survey of recent work on this, see Coggins (2010).
12. Things are actually much more complex than this, but the complexities don't matter for present purposes. For a naturalist modal theory very much on Oppy's lines, see Vetter (2014). My own view in *God and Necessity* is a theist analogue of this.

13. If the first chance to act is at the first instant, then only the first instant is necessary.
14. Obviously, it doesn't fit with CONT/CONT and CONT/NEC.
15. Or at any rate, this is what a naturalist should say. Naturalists have nothing beyond physics to take into account. Theists do. So they need not endorse this conclusion, at least for the reason given.
16. This is not exactly Lowe's actual view, for which see Lowe (1996).
17. Lange (2013).
18. Leftow (2012), 51–54.
19. *Ibid.*
20. See Leftow (2012), ch. 7, *passim*. For present purposes, we can ignore Trinitarian complications. Swinburne claims that what are essentially perfect-being considerations dictate that the one God is a Trinity (Swinburne (1994), 175–180). So on his terms too, perfect-being considerations settle the number question: if there are any perfect beings, there is at least one, and if there is at least one, according to Swinburne, there will be exactly three, constituting a Trinity. It might sound odd to enlist Swinburne among perfect being theologians, given the distance between his views and (say) Anselm's, but he clearly does think that God is perfect. He just has a very different idea of what His perfection consists in.
21. I grant here that naturalists are entitled to speak of natures, though this has been denied (Rea (2002)). Of course, many naturalists do not *want* to speak this way (e.g. Quine). But if they could not, I would regard this as a cost of the view. So I speak this way for charity (as I see it) and to make it easier to compare bruteness on the two views. In any case, Oppy is comfortable with metaphysical modality, and if he is not similarly comfortable with natures, he can translate what I say into terms that suit him.
22. Swinburne offers a different candidate for basic divine description, but makes the same claim – that we can get the rest of the divine nature from it (Swinburne (1994), 151–154).
23. Many perfect being theologians would say that all properties perfect being reasoning can deliver are something like necessary accidents – that the divine essence is unknowable to us in this life. Even if this is true, PBT can still claim that there is a valid perfect-being argument from suitable premises for the claim that God has this essence. It need only add that we are not equipped to produce this argument, because we do not know what attribute figures in its conclusion. Again, there's a reason. It's not brute. It's just that we aren't equipped to grasp this.
Tim Mawson raised in correspondence the thought that perhaps God has necessary intrinsic but somewhat arbitrary properties inaccessible to perfect being reasoning – say, a favourite colour. My 'distinctively divine' means 'divine-making'. If God's favourite colour is blue, that is not part of what makes Him divine, or perfect. So it does not count against the stronger claim if PBT cannot deliver this.
24. See e.g. Leftow (2004).
25. On the weaker claim, I still think that whatever the divine essence is, it is a perfection and not involved in a tie. A weak argument to this effect: it would be better to have such an essence than not to have it, and there is no reason to think there are no candidate properties available to be such an essence.
26. One might perhaps add one about God's relationship to modal truth (see Leftow (2012)). Historical perfect being thinkers have held that God is this ground, and almost all held a particular theory of how He is. I reject the theory. But my almost-lone demurral is not enough to constitute there being a serious debate about the matter. Maybe someday!
27. Swinburne takes up the cudgels for divine contingency, but these days he is in a minority. I argue against his view in Leftow (2010).
28. Leftow (2012), 437–443.
29. Some might suggest, on Swinburne-style simplicity grounds, that there being nothing concrete is *a priori* the most likely state of affairs. (My thanks to Tim Mawson.) I take no stand on this, but if it is true, it is also reason to lean against (10). If there are no concreta, all concreta do not compose any universe at all.
30. Some might jib here. Some sorts of pantheism are neither naturalist nor theist. Perhaps one should be agnostic about these too. Surely one can be agnostic about all three. But how could one have a .5 ultimate prior for each of three things? Shouldn't ultimate priors sum to 1, like credences *simpliciter*? If .5 for each isn't right, perhaps the next thing to try is modelling agnosticism among multiple options as giving them an equal chance to be true – i.e. dividing 1 by the number of options I'm undecided between. However, if I divide my credence equally between (say) theism, pantheism, and naturalism, then I assign each a .33 credence. Then the question arises of how I conditionalize given further evidence. If I conditionalize on .33, I conditionalize on probable falsehood, not agnosticism. It is as if I need further evidence to get to agnosticism. That's false. I'm starting from agnosticism; evidence moves me away from it, towards belief.

But if I assign .33, how can I not conditionalize on .33? At the moment, I can't do better in making sense of agnosticism than to let all three have .5 and say that agnosticism is something of a special case. If I become convinced of another, better approach, I will have to revisit this argument.

31. I might owe this reply to Graham Oppy. (The 'might' is what I get for not writing things down.)
32. My thanks to Graham Oppy and Tim Mawson for very helpful comments on earlier versions of this material.