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The Puzzle of Existence

Why Is There Something Rather Than Nothing?

Edited by Tyron Goldschmidt

The Puzzle of Existence

This groundbreaking volume investigates the most fundamental question of all: Why is there something rather than nothing? The question is explored from diverse and radical perspectives: religious, naturalistic, platonistic, and skeptical. Does science answer the question? Or does theology? Does everything need an explanation? Or can there be brute, inexplicable facts? Could there have been nothing whatsoever? Or is there any being that could not have failed to exist? Is the question meaningful after all? The volume advances cutting-edge debates in metaphysics, philosophy of cosmology, and philosophy of religion and will intrigue and challenge readers interested in any of these subjects.

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For Yael and Hannah Tehillah

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1 Introduction
Understanding the Question

Tyron Goldschmidt

Why is there something rather than nothing? The question encapsulates the puzzle of existence. This chapter introduces the puzzle and the rest of the volume. After some terminological preliminaries in Section 1, Section 2 explains the puzzle by identifying and distinguishing more particular questions. Section 3 surveys the main answers that have been put forward and outlines the chapters in the rest of the volume, identifying their bearing on the different questions and on each other. There are a couple of original and pertinent points too.

1 PRELIMINARIES

A few philosophical notions are helpful in formulating the questions and are at work in the chapters that follow. Particularly prevalent are the pairs of notions of *concreteness* and *abstractness*, and *contingency* and *necessity*, and then, the trickiest of all, the notion of *possible worlds*.

Concreteness and Abstractness

The distinction between concrete and abstract beings has been drawn in various ways but usually by using spatiotemporal and causal criteria. On the spatiotemporal criterion, concrete beings are spatiotemporal: concrete beings are in space or time, whereas abstract beings are spaceless and timeless. On the causal criterion, concrete beings are causal in nature: concrete beings have causal powers, whereas abstract beings are powerless. There are then the tasks of providing more precise criteria for spatiotemporality and causal powers in turn. In any case, concrete beings are typically thicker and heavier, abstract beings thinner and wispier, and the categories mutually exclusive and exhaustive.

The spatiotemporal and causal criteria have similar extensions: planets and plants count as concrete on either, while numbers and propositions, as conceived by platonists, count as abstract on either. But they might not overlap entirely. On the one hand, there are candidates for spatiotemporal

beings that are not causal: for example, spatiotemporal points. On the other hand, there are candidates for causal beings that are not spatiotemporal: for example, God. But these are controversial exceptions, both as to whether they exist and as to whether they are exceptions: some ascribe powers to spatiotemporal points, and spatiotemporality (or at least temporality) to God.

I take the criteria to be stipulative definitions; *concrete* and *abstract* are terms of art. When philosophers disagree about them they disagree only about how to use the terms, and not about the nature of things. Thus, we do not have to decide which is correct; we have only to decide how to use our terms.[1]

Contingency and Necessity

Contingent beings are things that both could exist and also could fail to exist, whereas necessary beings are things that could not fail to exist. Necessary beings have a stronger grip on reality than do contingent beings. Planets and plants are contingent beings. If the boundary conditions of the universe or natural laws were ever so slightly different, no planets would have formed, and even with the boundary conditions and natural laws there are, if the planet were ever so slightly nearer to or further from the sun, plants would not have evolved.

God, as traditionally conceived, would be a necessary being. God would not just *happen* to exist; if God exists at all, then God is the sort of being that could not have failed to exist. Other candidates for necessary beings are numbers and propositions (once again, as conceived by platonists), though these are controversial candidates, both as to their necessity and as to their very existence, which is at least as controversial as the existence of God.

The examples show that the categories of concrete and abstract, on the one hand, and contingent and necessary, on the other, could cut across each other. While most readily available examples of concrete beings are also contingent (thus plants and planets), there could be exceptions: for example, God would be concrete but necessary. Then there are abstract beings that are necessary (thus numbers and propositions), but there are also contingent abstract beings: for example, sets are abstract beings, but sets whose members are contingent—such as {Aristotle, the Eiffel Tower}—would themselves be contingent.

Possible Worlds

A possible world is a comprehensive way things could have been. The world could have contained many more planets than it does, and it could have

1. Peter van Inwagen (2007: 200) demurs, positing an essence of concreteness captured by none of our criteria but allowing that we don't need to know it to recognize the distinction between concrete and abstract beings or to identify instances of either.

contained fewer planets. There is thus a possible world containing more planets than does our world, and there is a possible world containing fewer planets. In contrast, there could never have been a square circle. There is thus no possible world containing a square circle. The actual world, the way things actually are, is a possible world because the way things are is a way things could have been.

Possible worlds have been said to *contain* beings, or (what is the same) beings have been said to exist in worlds. Possible worlds can also be said to *obtain* or *not to obtain*, or (what is the same) to be *actualized* or to be *unactualized*. The actual world is the possible world that obtains, whereas all other worlds are *merely* possible worlds. If a world contains a being or a being exists in a world, then if the world obtains, the being exists. Thus the actual world contains plants and planets, but only some merely possible world contains a unicorn.

The notion of possible worlds can help to explicate, or at least to make vivid, the notions of contingency and necessity just outlined. A contingent being, like a planet, is a being that exists in some possible worlds but not in all, while a necessary being, like God, is a being that exists in all possible worlds. One reason for believing in possible worlds is that they are useful in making sense of such and various other philosophical notions. The notion of possible worlds will be helpful in framing and distinguishing our questions, and some of the contributions also employ it.[2]

However, what exactly the notion amounts to—what the real nature of the worlds is, if it is anything at all—is the subject of extensive dispute, as are the notions of a world's obtaining or containing other beings. Some take worlds to be spatiotemporally discrete universes no less real than our own (and thus to be concrete), whereas others take them to be spaceless and timeless sets of propositions about how things could be (and thus to be abstract). Some take them to be merely a sort of useful fiction or heuristic (and thus to be nothing much at all), whereas others take them to be not-so-useful fictions (contrast Lewis 1986; Plantinga 1974; Rosen 1990; and Heil, this volume). As we will see, the debate bears crucially on the puzzle of existence.

2 THE QUESTIONS

The puzzle of existence can now be framed in terms of the notions introduced. More particularly, various fundamental questions about the world and the universe can be distinguished; one or more of these questions has been

2. Leibniz was the first to employ the notion of possible worlds and to frame the question "*why is there something rather than nothing?*" (see Leibniz 1989/1714: 210, italics in original; also see Leibniz 1989/1697). But he had something slightly smaller in mind by a possible world: what he meant was a possible divine creation. Thus on Leibniz's understanding God stands outside the system of possible worlds and could not coherently be said to exist in a world.

intended by the question "Why is there something rather than nothing?" The most frequently intended are the following.

Why Are There Any Beings at All?

This question asks why a world containing any beings obtains. This is the broadest question of all. The question would remain had any other world, no matter how radically different from our own, obtained; it would remain in a world containing only abstract beings, though of course there would be no one in such a world to ask it. The question amounts to a question about why any world obtains. After all, worlds are ways things could be, and without any ways or things—*beings* broadly construed—there can be no world. (The question should thus not be construed as a question about why a possible world containing some being obtains rather than a world containing no beings at all. The notion of such a perfectly empty world is incoherent.[3])

Why Are There Any Concrete Beings?

This question differs depending on the criterion of concreteness employed. On the spatiotemporal criterion, the question asks why a possible world containing beings in space or time obtains rather than a world containing no beings in space or time. On the causal criterion, it asks why a world containing beings with causal powers obtains. We could frame yet other criteria of concreteness, and thus other questions: for example, we could combine both criteria to ask why a world containing any spatiotemporal *or* causal beings obtains. The questions would remain in worlds containing spatiotemporal or causal beings—and even in a world containing only a particle, though there would then be no intelligent beings to ask it.

Why Are There Any Contingent Beings?

This question asks why a possible world containing any contingent being obtains. Assuming there are contingent beings, the question can be asked in our world and in worlds containing other contingent beings. When *beings* is construed so broadly as to cover contingent things of any kind (substances, events, sets, facts, etc.), perhaps every world will contain some contingent being—perhaps even a world containing no contingent substances or events would have to contain the very negative but contingent fact of there being no such beings. But *beings* can be construed more narrowly to mean substances

3. Or is my framing of the notion of a world as a *way things* could be not impartial enough? The notion of a world as a *comprehensive possibility* does not so immediately rule out a perfectly empty world. For my part, I don't really get the notion of such a bare possibility as there being nothing at all; compare Heil (this volume: 174–6).

(like planets or plants) or events (like battles or big bangs). The question would then ask why a world containing any such thing as a planet or a big bang obtains rather than a world containing no such beings, even should that world contain the contingent fact of there being no such beings. Yet another question combines the questions about concrete and contingent beings to ask why there are any beings that are *both* concrete and contingent.

Why Are There the Concrete/Contingent Beings There Are?

Besides the questions about why there are *any* concrete beings and *any* contingent beings, there are questions about why there are precisely the concrete and contingent beings there are. There is the question about why the particular collection or sum of concrete beings there are exists. This question would remain only in worlds containing all the concrete beings of our world. It is at least close to the question of why the universe exists, since *the universe* could mean the sum of all spatiotemporal things related to us or, alternatively, the sum of all things causally related to us. But there might be concrete beings beyond our universe—there might be multiple other universes of concrete beings, a multiverse. The question about why *any* universe exists could coincide with the question about why any concrete being exists.

The question about why the particular contingent beings there are exist would differ depending on the meaning of *beings*—again, whether this covers any kind of contingent being or only substances and events. On the broadest interpretation of *beings*, possible worlds are distinguished by the contingent beings they contain. The question would then ask why our particular world obtains rather than some other possible world. This question is less general than the previous ones in the sense that it can't be asked in any other world. Of course, the inhabitants of some other world can ask why their world obtains; if theirs were actualized, then that would be a fair enough question, at least as fair as the question about why the actual world obtains.[4] But their question is not why *this*—our—world obtains. In contrast, the previous questions can be asked in other worlds. The first question would remain in any world whatsoever, the second in any world containing concrete beings, and the third in any world containing contingent beings.

4. Might philosophical inhabitants of other worlds realize that our world, and not theirs, is actualized and ask why that is so? Or perhaps ours is the world that is merely possible; after all, there are far more merely possible worlds than the one actualized world. This teasing thought harbors some mistake about the nature of worlds (see Armstrong 1989: 14)—or else we think too much of ourselves. On Lewis's view of possible worlds as concrete universes of a kind with our own (see Lewis 1986), we do not think too much of ourselves so much as not enough of the inhabitants of other worlds.

Why Do Concrete/Contingent Beings Exist *Now*?

Less frequently asked, but worth distinguishing from the previous questions, are questions about why there exist concrete beings *now*, and why there *now* are the contingent beings there are. These questions differ from the previous ones. We could imagine worlds identical to our own up until, but not including, the present moment, when the beings then pop out of existence. Such worlds would still contain concrete beings, and if they obtained the question about why there are such beings would remain. But the questions about why the beings exist *now* can't be properly asked since they don't—at least on criteria of concreteness that do not count the present moment as concrete, for otherwise there could be no *now* without concrete beings. Similarly, the worlds could contain all the contingent substances there are, albeit with gappy or truncated lives, and if they obtained the question about why these beings exist would remain, though not the question about why they exist now.

There are yet other questions about why things continue to exist, perdure, or endure, over other times: Where do things find their continuing source of ontological fuel? What grounds their existential inertia? Doubtless the inhabitants of worlds where things don't run so smoothly would face their own pressing questions.

Why Is There Not a Void?

Another question that is less frequently asked but worth distinguishing is about why a world containing only a void does not obtain, where a void would be something like an empty space-time, a totally dark and vast abyss. When addressing the questions about why there are concrete or contingent beings, there's a tendency to try to represent the alternative as a void. So long as the void is itself concrete or contingent this is a misrepresentation. For example, if the question is about why any world containing concrete beings obtains, and a void counts as concrete (since spatiotemporal), then the alternative is not accurately represented by a void; when asking, "Why is there something rather than nothing?" the "nothing" is not a name for a void, an especially thin being but concrete nonetheless.

Once again, there are yet other cosmological questions about the void or at least void-like states of affairs. These are motivated by contemporary scientific proposals that the universe arose from a quantum vacuum. How did the universe arise from a quantum vacuum? Why was the quantum vacuum on the scene in the first place? The first question is close to one about why the universe exists if *the universe* is taken to cover only states of affairs subsequent to the quantum vacuum; the second question is closer if *the universe* covers everything spatiotemporal or causal and the quantum vacuum counts as spatiotemporal or causal.

These are enough questions for now; we turn to canvassing a few answers. The projects of understanding a question and of answering it are

related in both directions: while there is no prospect of answering a question without some understanding of what is being asked, understanding what would count as an answer also helps in understanding the question.

3 THE ANSWERS

All the above questions are *why-questions*, and the answers to such are *explanations*. There are other kinds of responses to the questions—responses denying that there is any explanation to be had or contending that the questions are somehow nonsensical or ill-formed. Many answers have been proposed for the many questions posed, more even than can be covered in our wide-ranging volume. However, the answers to a few of the questions are typically of a few kinds. We can now trace the most popular of these (*popularity* being a very relative matter among philosophers), along with the questions they promise to answer and those they hold no promise for. We'll also outline the chapters that follow and explore how they bear on traditional answers and on each other.

Necessary Being

By far the most traditional answer is in terms of God, conceived of as a necessary being. Indeed, the most traditional argument for the existence of God is just that God's existence would answer one or more of our questions—including the questions about why concrete beings exist, why contingent beings exist, and why all these continue to exist. Hence, the various versions of the cosmological argument.

The question about why concrete beings exist (on either the causal or the spatiotemporal criterion) would be answered in terms of the existence of God. God would count as concrete on the causal criterion, and indeed as necessarily concrete—since God, being essentially omnipotent, could not fail to have causal power. There would thus be a necessary and necessarily concrete being. This would mean that there being a concrete being is necessary; in terms of possible worlds, that all possible worlds contain a concrete being. One way of explaining why a kind of being exists is by showing that it had to exist, and so the existence of concrete beings would be explained.

Assuming that God is not spatial or temporal, God would not count as concrete on the spatiotemporal criterion. However, the existence of God still provides the resources for explaining why there are any spatiotemporal beings: so long as God has power enough to bring about such spatiotemporal beings, these beings could be explained in terms of God exercising this power. The explanation would be a causal explanation, rather than the kind of necessitarian explanation proffered for the existence of any beings with causal powers. That question can have no causal explanation, since

such an explanation postulates yet another being with causal powers. But there is no such trouble in a causal explanation of why there are any spatiotemporal beings. Thus, while the answers to each question are in terms of the existence of God, they invoke diverse attributes: necessity and power respectively.

Since spatiotemporal beings compose the universe, an explanation of why there are any spatiotemporal beings would begin to explain why there is a universe. Furthermore, since spatiotemporal beings are typically taken to be contingent, the answer begins to address the questions about why there are contingent beings—because God brings them about.

However, at this point the explanation becomes especially problematic. The divine causation would itself be either necessary or contingent. If it were necessary, then there would be no contingency after all, since what is necessarily caused by a necessary being is itself necessary. If it were contingent, then it would either be unexplained or have an explanation. If it were unexplained, then there would be no ultimate explanation of all contingency after all. If it were explained, then the explanatory factor would either be necessary or contingent. Once again, a necessary explanatory factor threatens contingency, whereas a contingent explanatory factor threatens the prospects for an ultimate explanation of all contingency—or an infinite regress or an explanatory circle (for example, in a self-explanatory contingent being).

There have been various reactions to the above explanatory predicament. Pressed towards ultimate explanation, some philosophers prefer to relinquish all contingency. Spatiotemporal beings would then be necessary—they might even be identical to or necessary emanations of God. There would thus be an explanation of the existence of spatiotemporal beings in terms of necessity or necessary emanation rather than contingent causation. Balking at such consequences, other philosophers relinquish any hope for an ultimate explanation and settle for an inexplicable, brute fact—in the realm of spatiotemporal things or beyond. Yet others countenance ultimate yet contingent explanations, especially a self-explanatory contingent being or a necessary being whose *contingent causing* of other beings is self-explanatory (compare, for example, Della Rocca 2010 and Pruss 2006).

In Chapter 2 of this volume, Timothy O'Connor defends the prospects of an ultimate explanation of all contingent beings in terms of a necessary, transcendent being—so long as the explanation does not require *contrastive* explanation in every case. There will sometimes be no explanation for why a certain being exists *rather than* some other, but O'Connor shows how there being no such explanation can itself be explicable and unproblematic, before addressing various objections against the model of explanation he advances and against the project of pursuing an ultimate explanation altogether.

In Chapter 3, Graham Oppy argues that ultimate explanation is more likely naturalistic than transcendent, whether or not the terminus of explanation is in a necessary being or a contingent being, and indeed whether or not there is a terminus of explanation altogether. Oppy focuses on explanations

of causal beings, and thus on the question of why there is anything concrete on the causal criterion. Neither O'Connor nor Oppy promises a definitive demonstration of their respective views, and both emphasize that their arguments rest on diverse and disputed philosophical theories, particularly about modality, causation, and explanation—but that's hardly a special problem for either position since *all* substantive philosophical views rest on contentious theories.

Chapter 4 by Shieva Kleinschmidt and Chapter 5 by Jacob Ross explore how far and deep explanation can go. They focus on the Principle of Sufficient Reason (PSR), which states that every truth, or at least every *contingent* truth, has an explanation. The PSR is at the heart of the traditional cosmological argument from contingency, and it is also thought to motivate the question of why there are contingent beings: if the PSR is true, then there must be some explanation of the fact that there are any contingent beings (and presumably an explanation invoking something outside the realm of contingent beings, namely, a necessary being); if there is no explanation, then there will be some brute, inexplicable contingency, and the pursuit of an ultimate explanation is in vain.

Kleinschmidt and Ross respectively respond to the most influential arguments for and against the PSR. Kleinschmidt contends that the argument *for* the PSR fails but that an alternative explanatory principle that the argument points towards is perfectly consistent with there being an explanation for why there are any contingent beings. Ross contends that the argument *against* the PSR fails but that the reason why it fails itself threatens the traditional cosmological argument: once saved from the objection, the PSR no longer implies the existence of a necessary being.

Chapter 6 by Christopher Hughes is a close study of another kind of cosmological argument for a necessary being. Besides (something very close to) the PSR, such arguments advert to a controversial premise about how contingent beings compose a whole. Hughes explores the metaphysics of composition and pluralities, supporting the premise and showing how the argument doesn't require it anyhow—all the while leaving open the possibility of diverse reactions to the argument, from rational acceptance to rational skepticism.

Aside from the cosmological argument, there is another traditional argument for a necessary divine being—the ontological argument. The argument introduces the being not to explain why there is something rather than nothing, but via the concept of a-being-than-which-no-greater-can-be-conceived. Such a being would have to be all-powerful (and so concrete on the causal criterion) and thus capable of bringing about contingent and spatiotemporal beings. Pure reflection on the concept of a-being-than-which-no-greater-can-be-conceived is supposed to reveal that the being exists: indeed, it cannot even be conceived not to exist, since otherwise we could conceive of an even greater being—one that could *not* be conceived not to exist—but we cannot conceive of a being greater than the being than which no greater is conceivable.

Such a line of reasoning strikes many as sheer philosophical mischief. Yet traditional objections fail to identify where exactly it goes wrong or are avoided by slight improvements to the argument—the argument as well as the objections have undergone various epicycles. Most recently, Peter Millican (2004) has framed an objection identifying how exactly the ontological argument falters. In Chapter 7, Earl Conee discovers some defects in this treatment and carefully formulates improved versions of both the ontological argument and the objection. This proposes an insurmountable critique that won't be overcome by subsequent reformulations of the ontological argument—an-objection-than-which-no-greater-can-be-conceived.

Goodness Gracious

Another kind of answer is given in extreme axiarchism, the view that ethical requirements are creatively effective: the universe exists simply because its existence would be good, without any intermediate mechanism bringing it about because it is good, without an intermediate God bringing it about for a good purpose. The ethical requirements have been taken to be necessary beings and necessarily creatively effective. The alternative of taking the ethical requirements to be contingent or contingently creatively effective would allow for the possibility of there being nothing but would leave the existence and creative efficacy of the ethical requirements unexplained.

Extreme axiarchism can be framed as a form of Spinozism, with necessary ethical requirements necessitating our particular universe and all its features—with whatever costs accrue to the denial of the contingency of and in our universe. The view can also be framed theologically, with the ethical requirements being responsible for the existence of a divine being or even identified with God, albeit conceived of a little more abstractly than usual (see Rice 2000).[5] Extreme axiarchism will then face some of the same criticisms as other theological answers, particularly those invoking divine goodness in explaining why there is anything at all. Most salient is the problem of evil: Why would a perfectly good God permit the existence of evil? Why would creatively effective ethical requirements? But then the same kind of response is available in each case: for example, there might be reasons in higher-order goods that cannot be had without the existence of evil, though on extreme axiarchism they cannot be the reasons *of* any being.

The most frequent objection raised against extreme axiarchism is that the explanatory relation between ethical requirements and the universe is mysterious: what is it for such abstract beings to bring anything about? The appeal of axiarchic explanations might trade on the plausibility of purposive explanations in terms of agents recognizing and acting on ethical

5. According to Rescher (2000: 157–8), such principles can be *self-explanatory*: efficacious ethical requirements exist because *that* is good.

requirements—but once stripped of purpose and agent, explanation in terms of such requirements alone becomes less intelligible.

This objection is hardly a decisive advantage for traditional purposive explanations of our universe—for how any transcendent being brings about all of space and time will be mysterious to beings so conditioned to think about *bringing about* in terms of their own acts within space and time. And that is not a decisive advantage for other explanations in turn. After all, causation within space and time is a conundrum, deepened by the very weird interactions discovered by science. No surprise then that the transcendent and original source of the universe—whether a traditional divine being or a more abstract ethical requirement—will be puzzling. Compare Derek Parfit in this connection: "If there is some explanation of the whole of reality, we shouldn't expect this explanation to fit neatly into some familiar category. This extraordinary question may have an extraordinary answer" (2011: 633; compare Nozick 1981: 116).

In Chapter 8, John Leslie defends extreme axiarchism, particularly in comparison with other answers to the question of why the universe exists and against various objections. With an elegant, sweeping review of the Platonic tradition, Leslie develops extreme axiarchism into a radical Spinozism (*radical* even by the standards of Spinozism) on which our universe and universes beyond are necessary and divine, the thoughts of infinitely many infinite minds. Even without such pantheistic and polytheistic embellishments, such extreme axiarchism is not a traditional kind of theism, but Leslie contends it is nevertheless worthy of the term.

If the ethical requirements emanate our particular concrete universe, so that the universe turns out to be a necessary being, extreme axiarchism comports with answers in terms of necessary being. But extreme axiarchism need not entail that the ethical requirements emanate our universe. They might instead have to emanate some concrete universe or other, but not necessarily *our* universe. In that case, extreme axiarchism would comport with the next kind of answer.

Being Necessarily

There are other answers to the question about why there are concrete beings—causal or spatiotemporal—in terms of the necessity of there being concrete beings or a universe but without invoking any necessary concrete beings: there had to be some or other concrete beings but without any particular one being necessary; in terms of possible worlds, every world contains some concrete beings, but no concrete being need exist in all possible worlds. If a universe is just a sum of concrete beings, then this would also answer the question about why a universe exists.

There are a few arguments for this kind of answer, and a few of these arguments draw from the metaphysics of modality: very general theories of the nature of possibility and possible worlds. Two of the most prominent

theories of the nature of possible worlds entail that every world contains some concrete being or other.

The first is David Lewis's modal realism: possible worlds are causally and spatiotemporally isolated sums of spatiotemporally related beings—nothing very different *fundamentally* from our own universe, though quite a few contain talking giraffes, and such like. Every world contains some spatiotemporal being, and thus some concrete being, at least on the spatiotemporal criterion (see Lewis 1986). Lewis accepted this consequence but then rejected its relevance for explaining why there is something rather than nothing on the grounds that explanation must be in terms of causes whereas the explanation here is not (see Lewis 1986: 73–4). However, these are strange grounds since not every explanation need be causal; there are other kinds of explanation—explanations in fields as diverse as mathematics and morality do not typically take a causal form. I should think that solving another philosophical puzzle counts in favor of Lewis's theory.

The second relevant metaphysics of modality is David Armstrong's combinatorial theory: possible worlds are diverse combinations of the particulars and properties of our own world. Thus there are worlds containing talking giraffes, constructed out of the camelopardalic particulars and loquacious properties of our own world. There is also the possibility of barer landscapes, contracted worlds containing fewer things than our world does; even though other worlds must be constructed only from the ingredients of our world, they need not contain all of these ingredients. However, there is no perfectly empty world. All worlds, however contracted they may be, are constructions, even if of only a single particular and a simple property. Furthermore, on Armstrong's naturalism, all the particulars and properties of our world are spatiotemporal, and thus every world would contain some concrete being (see Armstrong 1989).

Unlike Lewis's worlds, Armstrong's are not just as real as our own; merely possible worlds are mere fictions. On Lewis's view, talking giraffes exist as much as do the more reserved kind, even if nowhere near us; on Armstrong's view, talking giraffes exist merely in fictions, if that is even so much as existence. Similarly, other modal theories make for a deep divide between the actual world and what it contains and other possible worlds and what they contain—the merely possible beings they contain would exist if the world were actualized, but they don't exist and the worlds aren't actualized. There is the question about why our world has this special ontological distinction. In contrast, Lewis views actuality as perfectly indexical; being actual is being a part of the world we inhabit and confers no ontological distinction.

Unlike Armstrong's theory, Lewis's would explain not only why there are any concrete beings but also why there are the contingent beings there are. On Lewis's view, beings are contingent insofar as they not do not exist in every world—but not insofar as they could have failed to exist altogether. For the worlds themselves could not have failed to exist. After all, they are supposed to provide the ontological applications for modal discourse that

is necessarily true; the worlds are supposed to be possibilities, and what is possible is necessarily possible (at least in some cases, and in all if S5 captures the logic of modality). Even though giraffes do not exist in every world, those worlds in which they do exist are just as real as our own and could not have failed to exist, so that ultimately the giraffes could not have failed to exist.

However, these consequences are problematic. The original meaning of "a contingent being"—a being that could have failed to exist altogether—is distorted (compare the criticism in van Inwagen 1986), and the theory fails to secure the existence of such beings. Meanwhile, concrete worlds themselves *appear* to be contingent, whereas they would have to exist necessarily. Contrast rival modal theories that introduce abstract worlds: the kinds of entities the worlds are typically reduced to, e.g. sets of propositions, do not appear contingent.

Answers depending on Lewis's modal theory inherit these and other problems. Answers depending on Armstrong's theory inherit the problems facing that theory. One serious problem is that the theory fails to accommodate the possibility of certain beings that could have existed but do not, alien particulars and properties (see Schneider 2002). For example, fundamental physical properties unlike those of our world appear possible; the possibility is supported by considering contracted worlds where there are only the fundamental properties there are in ours but not all of them—if alien properties are possible relative to those worlds, then why not relative to ours? However, such properties cannot be constructed from recombinations of properties in our world, and so their possibility is excluded by Armstrong's theory.

David Efird and Tom Stoneham have contributed widely to the debate about whether there could have been nothing concrete, and have contended that modal realism and combinatorialism can and should be reworked in ways that permit that possibility: modal realism can be extended to permit a world constituted by abstract beings, and combinatorialism to permit a world constructed out of no particulars and properties (see Efird and Stoneham 2005a, 2006). Chapter 9 by Efird and Stoneham is a methodological exposition on how to deal with conflicts between particular views about what is possible and more general modal theories about what possibility is, especially in the context of the debate over the possibility of there being nothing concrete.

Chapter 10 by John Heil explores how philosophical thinking about possibility and necessity is conditioned by problematic, if sometimes imperceptible, assumptions. Quite at odds with Efird and Stoneham, Heil is suspicious about the prospects of even framing such far-fetched possibilities as there being nothing whatsoever or there being nothing concrete. He proposes an alternative view on which there had to have been concrete beings, and a universe like ours in particular, while allowing for some contingency arising out of its indeterministic functioning. Heil's guiding principle is that there is

no presumption in favor of every or any thing being contingent—proposals about contingency require as much support as do those about necessity.

There remain other arguments, arguments not appealing to any modal theory, for the conclusion that there had to be some concrete beings or other but without any particular one being necessary. E.J. Lowe (1996, 1998) proposes an argument appealing to the nature of abstract beings—particularly that

(1) some abstract beings necessarily exist;
(2) the only possible kinds of abstract beings are sets and universals;
(3) sets depend upon non-sets (their members); and
(4) universals depend on non-universals (their instances).

Premise (1) is grounded on numbers being the truthmakers for the necessary truths of mathematics, and (2) on considerations of parsimony. Premise (3) is grounded in the rejection of the empty set and, what is a consequence, any pure set, and (4) on an immanent realism requiring that every universal have a particular instantiation. With premises (1) to (4) in place, the argument proceeds simply: if there could be only sets and universals, then the sets would have to depend on the universals, and the universals would depend on the sets in turn, which is a vicious circle of dependence. Thus there could not only be sets and universals. Thus, since sets and universals are the only possible kinds of abstract beings, there could not only be abstract beings; abstract beings depend on concreta. Therefore, since necessarily some abstract beings exist, necessarily some concrete beings exist.

In Chapter 11, Lowe updates his argument and answers various objections leveled against his views about abstract beings and the relations between abstract and concrete beings. Most saliently, he explains how the necessary existence of abstract beings—what I've listed as premise (1)—is not required for the original dialectical context of the argument. Even leaving open the possibility that there could have been no abstract beings, and that there could have been neither abstract beings nor concrete beings, the argument would show that there could not have been *only* abstract beings, which was what the argument was originally supposed to show to be impossible anyhow.

The Possibility of Nothing

We've seen a few answers appealing to the necessity of there being something (or other) concrete or, what is the same, the impossibility of there being nothing concrete. They are thus threatened by arguments for metaphysical nihilism, the thesis that there being nothing concrete is possible. The most significant of these is the subtraction argument, which has attracted considerable recent debate (see Coggins 2010).

Thomas Baldwin introduced the argument as follows:

(A1) There might be a world with a finite domain of "concrete" objects.

(A2) These concrete objects are, each of them, things which might not exist.
(A3) The nonexistence of any one of these things does not necessitate the existence of any other such thing. (1996: 232)

By (A1), there could have been finitely many concrete beings—ten, say, including *b10*, *b9*, *b8*, and so on. By (A2), all these beings could exist minus poor little *b10*. By (A3), no other being would need to take its place. So there could have been fewer finitely many concrete beings, nine in our case. Wash, rinse, and repeat—until you recognize that there could have been only one concrete being, little *b1*. By (A2), *b1* could have failed to exist, and by (A3) no other being would need to have taken its stead—that is, there could have been no concrete beings whatsoever.

Those proposing the answers outlined above will dispute the premises of this argument. Proponents of a necessary concrete being will deny that all concrete beings are contingent, contrary to premise (A2). Proponents of the view that there had to be something or other will insist that, were there only one concrete being, its nonexistence would require another concrete being in its place, contrary to (A3). Whether these are plausible moves depends on whether the premises they start from—for example, the existence of a necessary being, or modal realism—are more plausible than those of the subtraction argument.

However, much of the criticism of the subtraction argument focuses on premise (A1). There are problems in securing a finite number of concrete beings. For example, if unit sets of concrete beings are themselves concrete, then, for any concrete being, there will in turn be the concrete unit set of that being, and the concrete unit set of that concrete unit set, and so on *ad infinitum*. Then there are problems arising from the infinite number of space-time parts and overlapping regions contained in regions of space-time, and problems arising from the infinite number of arbitrary undetached parts of concrete beings, each occupying one of the infinitely many regions occupied by the beings—for example, the top half of little *b1*, the top half minus a particular point, the top half minus another point, and so on.

These problems have been avoided in two ways: first, by denying that there need be infinitely many unit sets of concrete beings, infinitely many space-time points or regions, or infinitely many arbitrary undetached parts of concrete beings; and, second, by framing criteria of concreteness that don't count the infinitely many beings as concrete. For example, a spatio-temporal criterion restricting concreteness to beings existing "in" space and time, but not the space-time points or regions themselves, would not recognize an infinite number of such points or regions as concrete (see Gonzalo Rodriguez-Pereyra 1997; Lowe 2002).

A few of the criteria of concreteness employed in versions of the subtraction argument are a little different from those introduced above. For example, on Baldwin's criterion concrete beings are those not obeying the identity of indiscernibles, where a being obeys the identity of indiscernibles

just in case no other being could share its intrinsic properties. These criteria of concreteness allow for framing yet further questions about why there are any concrete beings in terms employing the criteria.

However, with so many criteria there's risk of the subtraction argument losing its sting. If the argument shows only that there could have been no concrete beings on a certain criterion, but not that there could have been none on another criterion, then the argument does not threaten the view that the existence of concrete beings on the other criterion is necessary—and the question about why such beings exist might be more pressing for us. For example, if the subtraction argument successfully shows only that there could have been no beings "in" space and time, it won't eliminate answers in terms of a necessary being for questions employing a broader criterion of concreteness.

Chapter 12 by Gonzalo Rodriguez-Pereyra develops his version of the subtraction argument. The argument avoids the problem of infinitely many concrete beings by employing the trickier notion of a *concrete** being. However, Rodriguez-Pereyra shows how the possibility of there being nothing concrete* entails the possibility of there being nothing concrete on a broader spatiotemporal criterion. He then tries to show how his version of the subtraction argument is superior to a version formulated by Efird and Stoneham (2005b).

Even if the subtraction argument demonstrated the possibility of there being nothing concrete on every criterion of concreteness, that would not destroy the prospects of answering the question about why there are any concrete beings at all. There are answers that countenance the possibility of there being none whatsoever.

The Probability of Something

Robert Nozick (1981) and Peter van Inwagen (1996) put forward an answer to our question in terms of the probability of concrete beings, rather than their necessity. The answer thus countenances the possibility of there being nothing concrete and avoids the threat of the subtraction argument. The line of reasoning supporting this answer can be summarized as follows:

(1) There are more possible worlds containing concrete beings than possible worlds containing no concrete beings.
(2) All possible worlds have an equal intrinsic probability of obtaining.
(3) Therefore, a possible world containing concrete beings has a higher intrinsic probability of obtaining.

Indeed, van Inwagen proposes that the probability of a possible world containing concrete beings is as high as can be—since there are infinitely many such worlds whereas there is at most one world containing no concrete beings. But perhaps there could be many such worlds—differing in terms of

the abstract beings they contain, e.g. transcendent universals or contingent counterfactuals. In any case, there would remain a greater proportion of worlds containing concrete beings.

More pressing is an objection rejecting premise (2) for a principle assigning simpler possibilities higher probabilities—indeed, Leibniz originally pressed our question on the presumption that the simplest and most probable state of affairs is there being nothing: "the first question we have the right to ask will be, *why is there something rather than nothing*? For nothing is simpler and easier than something?" (1989/1714: 210, italics in original).[6]

Van Inwagen supports his assignment of probabilities via various analogies: for example, a computer spontaneously generated out of an evaporating black hole would as likely contain a novel written in French as English as German. However, the analogies might trade on the wrong kinds of probability—for example, physical probability, which would measure how near or far a state of affairs (the computer containing an English novel) is from being determined by prior states of affair (the evaporating black hole). That kind of probability cannot be at work in the argument; there is no question of the physical probability of any world obtaining since there is no prior state of affairs.[7] The probability involved in the argument is instead of an intrinsic, and rather recondite, kind.

While the probabilistic answer addresses the question about why there are any concrete beings, it does not answer our other question about why the contingent beings there are exist. Indeed, it deepens this puzzles since the probability of our contingent order obtaining—given all the infinite number of alternatives—would be very low. But the argument might hold some promise for another question not raised above: why does such a complex universe exist? After all, there are more ways there could be complexity than simplicity: with more beings comes more possible arrangements. Like the others, the probabilistic answer would have costs as well as benefits.

In Chapter 13, Matthew Kotzen addresses the probabilistic argument as it bears both on the question of why there are any concrete beings, and also on the more particular question of why there are material beings. He illustrates further cases where possibilities are properly assigned equal probabilities as well as cases where such an assignment would be crazy—including cases where the possibilities are isolated and maximal, such as possible worlds are. Consideration of such scenarios shows when exactly we are

6. If simpler states have higher intrinsic probabilities of obtaining, then could the simple original conditions (e.g. of the universe or of a divine being) have been less probable than there being nothing concrete, but nevertheless not very improbable—so that there remains a puzzle of why there are concrete beings rather than none, but the puzzle is a little reduced? Compare Swinburne (1991: 288–9).
7. Neither does epistemic probability play any role. That would measure the extent to which a hypothesis is supported by evidence. We hardly need point out that the epistemic probability that the empty world obtains is 0.

justified in assigning equal probabilities to possibilities—when we have *a posteriori* grounds, which we do not have in the case of possible worlds. Kotzen concludes that the probabilistic answer fails.

Down to Earth and Up Again

Perhaps the answers to our questions are not to be had in these or any philosophical speculations, but in the domain of science. Recent popular science literature points to speculation about how our complex universe emerged from very simple original conditions: since simple states in nature tend to be unstable and give rise to more complex states, the very simple original conditions would likely give rise to a more complex state, such as a universe (see Wilczek 1989; Stenger 2007: 135). The original conditions are so simple—empty of space, time, mass, and energy—that the theories are then advertised as explaining how something comes from "nothing" (see Krauss 2012; Hawking and Mlodinow 2010).

These theories promise answers to some of our questions, e.g. about why the universe exists (so long as *the universe* is taken to mean only what is subsequent to the simple original conditions) and about why there are any concrete beings (so long as by *concrete* we mean such spatiotemporal beings as those constituting the universe). But there remain questions about why the original conditions existed and were governed by such natural laws as to give rise to the universe. Until these are answered, science has not explained why there are any contingent beings rather than none at all.

Science has also not explained why there are any concrete beings on the causal criterion of concreteness. For the original conditions have causal powers—the disposition or tendency to give rise to a more complicated state of affairs—and would themselves count as concrete. Indeed, science *in principle* cannot explain why there are any causal beings if it is the very nature of scientific explanations to invoke causes. Some give up hope of science ever resolving our deepest questions (see Parfit 2011: 623; Swinburne 1998: 428).

There might yet be prospects of a scientific explanation if such explanation extends beyond causal explanation. Chapter 14 by Marc Lange outlines a noncausal scientific explanation of why there are any contingent beings. The explanation invokes laws of nature: natural laws could necessitate (without causing) there being some contingent beings. The laws would themselves appear to demand explanation, especially if they too are contingent. But Lange considers laws not to be the kind of *thing* the question is about—indeed, not to be "things" at all so much as "facts". Contingent things could then be explained in terms of contingent laws, without requiring an explanation of the laws in turn. In our terminology, the answer explains why there are contingent, concrete beings by invoking laws that, while contingent, are not the kind of concrete being the question is about. Natural laws are contingent, abstract beings.

The answer then depends on a conception of natural laws as abstract beings that are metaphysically prior to, and so can explain the existence of, concrete beings. Alternative views have natural laws as the conjunctions of concrete events (the Humean view; see Lewis 1994 for a contemporary variation) or the shared disposition of concrete substances (the essentialist view; see Bird 2007). If such views are correct, then concrete beings are metaphysically prior to natural laws, and the answer fails. However, the explanatory power of the view of natural laws might be a reason for accepting it. Lange's view has yet another advantage: by taking natural laws to be contingent, abstract beings, we can allow for the possibility of there being no laws, and hence no laws necessitating concrete beings—and hence the possibility of there being nothing concrete, the possibility supported by the subtraction argument. Even if the probabilistic answer fails, Lange provides the resources for explaining why there are concrete beings without ruling out the possibility of there being none.

Challenging the Question

Lange sketches how a scientific answer in terms of natural laws might go but leaves it to future science to discover what exactly the relevant natural laws and beings they necessitate are. That requires nothing less than our discovering the fundamental structure of the universe. In Chapter 15, Stephen Maitzen advances an easier empirical answer, no more requiring a final physics or cosmology than a superficial zoology: there are contingent, concrete beings because penguins exist. Since penguins are essentially contingent, concrete beings, the existence of penguins entails the existence of concrete, contingent beings. The entailment of one fact by another is often enough for an explanation, and is so in this case, but we even have a pretty good explanation of why penguins exist in turn.

The explanation appears not so much as a bad answer to our deepest questions as not an answer at all—the explanation appears to fail altogether at addressing the question of why there is that sum of contingent/concrete beings of which penguins are a mere part, or why there are any of the kind of contingent/concrete beings of which penguins are mere instances. Maitzen replies that insofar as our questions cannot be answered in terms of the existence of penguins, this is not because they are deep but because they are ill-formed: the questions don't so much as make sense. Those that make sense are superficial and solved perfectly in terms of penguins. All other questions are to be *dissolved*.

Chapter 16 by Kris McDaniel challenges the significance of the question of why there is something rather than nothing in another way. He contends that, as sometimes posed, the question very well might have a quite teenagerish answer: there is something rather than nothing because had there been nothing, the absence of beings would exist, and so there'd be something after all, even if only an absence. That shows that the question is shallow. The question about why there are any concrete beings is shallow, too: neither the

something/nothing nor the concrete/abstract distinctions are metaphysically fundamental—neither carve reality at the joints—and McDaniel contends that deep questions must employ distinctions that are fundamental.

McDaniel draws on the view that things can exist in fundamentally different ways and to different degrees in order to frame different questions: Why are there any things with such-and-such a way of being rather than no such things? Why are there any beings with such-and-such a degree of being? Framing the question in terms of distinctions between fundamental modes of being that carve reality at the joints might prove more promising. Ultimately, however, McDaniel thinks that the prospects of a deep question are at best unclear.

Perhaps, by this stage, we've been too taken in by the questions for them to lose their grip on us. But if the proposed answers we've considered still seem to be getting at (perhaps even answering) deep questions that "because there are penguins" doesn't, then we're at least left with the challenge of figuring out what exactly those questions are.

4 CONCLUSION

The puzzle of existence has received less attention than other fundamental questions; at least, the literature devoted *directly* to it is much sparser than that devoted to, say, the problem of universals, the problem of free will or the problem of consciousness. But the puzzle bears as much on our deepest commitments (at least if it is meaningful, and the question of its meaningfulness deserves consideration for that reason). It bears on various topics in metaphysics, philosophy more generally, and beyond. This volume brings together exciting new work in metaphysics, philosophy of religion, and philosophy of science and hopefully will bring the puzzle a little more of the attention it deserves.[8]

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2 Could There Be a Complete Explanation of *Everything*?

Timothy O'Connor

> One need only shut oneself in a closet and begin to think of the fact of one's being there, of one's queer bodily shape in the darkness . . . of one's fantastic character and all, to have the wonder steal over the detail as much as over the general fact of being, and to see that it is only familiarity that blunts it. Not only that *anything* should be, but that *this* very thing should be, is mysterious!
>
> —W. James, *Some Problems of Philosophy* (1911)

The world is a complicated place. The naked human eye reveals many kinds of things, animate and inanimate. Natural science, and especially fundamental science, brings some unity to the blooming and buzzing confusion of ordinary observation. But it still involves a lot of particular detail—the specific mass and charge of electrons, for example, the number of them, and the size and structure of spacetime and lots of other things. Whichever way you look at it, it doesn't seem to be *necessary* that things be this way. I might have been a roofer like my father instead of a philosopher, and there might have been 'schmectrons' instead of electrons as among the basic building blocks of physical reality. There seems to be no end to the ways things might have been, as opposed to the one complete way that things are (including the past and future). Philosophers express this by saying that most things about the world seem *contingent*—such that they might have been otherwise—rather than *necessary*—such that things *had* to be that way. Science is about the business of trying to explain how things actually are, at a deep level, and how they behave: that is, it proposes and ever refines accounts of the world's structure and dynamics. However, there can seem to be something necessarily left over, something left unaccounted for, in principle, by our best theories: the fact that things *in general* are as they are: that there happens to be a world of the sort that we find and that science aims to better understand.

Is contingent existence a proper target for explanation? If so, what kind of constraints might there be on an acceptable explanation? There undeniably is a powerful impetus in us to ask the question 'Why is there *this*—why,