Why Does the World Exist?: An Existential Detective Story Study Guide

Why Does the World Exist?: An Existential Detective Story by Jim Holt

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Plot Summary

Jim Holt, a philosopher, author, and essayist who has been published in The New York Times, The New Yorker, and similar publication, has written a book to address what might be the most fundamental question ever asked, namely "Why Is There Something Rather Than Nothing?" The book is not merely a story of his search for an answer to his question but a catalogue of conversations that Holt has with different philosophers, physicists, and writers about their answers to his question. Holt does not himself provide an answer beyond a brief "proof" given towards the end of the book. Instead, he lays out a number of options for the reader to pick and choose from. Some views are relatively familiar, such as theism, but others are wild and fantastic, such as axiarchism, where the universe exists because the nature of the good requires it. The reader is bound to find information and arguments that challenge the reach of her understanding, as this guide explains.

In "Why Does the World Exist?" Holt divides the book into chapters and interludes. The interludes are brief asides and philosophical discussions that transition between but that do not fit entirely within the main fifteen chapters, much of which cover Holt's struggle with a particular answer to his key question. There is no simple order to the answers that Holt lays out. Instead, their order reflects Holt's own questions. The book begins by explaining why the question itself makes sense and how nothingness is a real option. In other words, there really might have been nothing at all.

As the book progresses, Holt begins to lay out answers to the question. Chapter 4 introduces the reader to Adolf Grunbaum, a widely regarded philosopher of science who argues that the question has no answer and that, in fact, it does not really make sense in the first place. Holt concludes that Grunbaum's rejection of the question is too hasty. Chapter 6 records Holt's discussion with Oxford philosopher Richard Swinburne, a Christian theist who thinks it most probable that God created the universe. While Holt finds Swinburne kind and his reasoning impressive, he argues that Swinburne's version of God leaves enough questions unanswered that God is not an attractive solution. In Chapter 7, Holt engages David Deutsch's theory of the multiverse, the view that a great many universes exist. Chapter 8 introduces physicist Alex Vilenkin, who thinks that universes can come into being from relatively little energy and in Chapter 9, the reader meets Steven Weinberg, a physicist who thinks we might answer Holt's question when we come to have a final theory of matter and energy.

In Chapter 10, physicist Roger Penrose argues that the universe exists based on Platonic objects, in particular numbers. And in Chapter 11, Holt explores John Leslie's view that the universe exists because it would be good for it to exist. Chapter 12 covers Derek Parfit, who argues that the universe may exist in virtue of abstract Selectors and in Chapter 13, Holt meets John Updike, who takes a fideist approach. Chapter 14 reviews the work of Thomas Nagel on the mystery of selfhood, as it relates to the mystery of existence and Chapter 15 reflects on the nature of death.

Interspersed with these reflections are various important events in Holt's life, such as the death of his dog and his mother, along with his busy travels in Paris. These parts add narrative life to the book.

Prologue, A Quick Proof That There Must Be Something Rather Than Nothing, for Modern People Who Lead Busy Lives, Chapter 1, Confronting the Mystery, Interlude, Could Our World Have Been Created by a Hacker?, Chapter 2, Philosophical Tour d'Horizon

Prologue, A Quick Proof That There Must Be Something Rather Than Nothing, for Modern People Who Lead Busy Lives, Chapter 1, Confronting the Mystery, Interlude, Could Our World Have Been Created by a Hacker?, Chapter 2, Philosophical Tour d'Horizon Summary and Analysis

In the prologue, author Jim Holt begins the book with a cute faux argument that is supposed to demonstrate that "something" must exist rather than "nothing" that involves an argumentative slight of hand. In this way, he attempts to demonstrate that the existence of nothing is impossible.

Holt first began to think about the nature of existence in the early 1970s, when he was in high school in rural Virginia. He first considered the question of why there is something rather than nothing when Martin Heidegger's Introduction to Metaphysics posed it to him. It is the ultimate "why" question. Holt believes he had not thought of the question because his religious upbringing "stifled" him. He was taught that the universe existed because God existed. The existence of God was left a mystery.

But most Americans believe this answer, and those who do not believe in God have trouble with the question, as do many intellectually sophisticated atheists. Physicist Stephen Hawking argues that the universe is self-contained, with no beginning or end. But this scientific hypothesis is inadequate, as it appeals only to physical causes and we must ask why there are physical causes at all. But we must also avoid appealing to "God did it" whenever we're unsure of our answers. Some atheists respond with the "brute fact" view, where the existence of the universe has no answer. This is to give up. The universe sure seems to have an explanation. Further, a randomly existing universe would be unnerving as it would have no trustworthiness.

It appears that we are forced to choose between God and the absurd. To avoid these answers, Holt has decided to figure out just what "being" comes to. Some say there are two modes of being - physical and mental. But both need a creation, so perhaps we need something more, such as pure mathematics, which is neither material nor mental. But abstract entities like numbers of other concepts have no causal power. They can't bring anything into being. Neither can "teleological" explanations. Holt found himself most attracted to a "nontheistic" explanation for the existence of the world.

To flesh out this answer, Holt began to consult various purported answers, answers given by philosophers, theologians, physicists, mystics, and a novelist. The book is composed of their answers and Holt's engagement with them.

In the first interlude, Holt discusses his encounter with physicist Andrei Linde, a Russian who teaches at Stanford University and created the theory of "chaotic inflation" to demonstrate that it takes very little to create a universe. You only need a very small amount of matter. This suggests that someone in another universe might have used this small amount of matter to create our own universe. Perhaps this being is nothing like God, however, as he may have many flaws.

In Chapter 2, Holt notes that we cannot laugh away the problem, as some as wont to do. He notes that in ancient religion, the question was not posed, as all creation stories began with beings already in existence. They created "cosmogonies" which do not begin from nothing at all. Nothingness was also alien to the Jews. It was not until the early Christian ages that theologians thought God so majestic that he could create from nothing at all.

Gottfried Wilhelm Leibniz, one of history's greatest geniuses, offers his own answer in 1714 by postulating the Principle of Sufficient Reason, which holds that all contingent events have a sufficient explanation. The explanation of the universe is given by a necessary being, one which contains within Himself the reason for his own existence. Nonexistence is impossible for God. But in the eighteenth century, philosophers David Hume and Immanuel Kant would critique this answer. They thought the very idea of a necessary being was philosophically confused, like a square circle. But Kant and Hume did not take Holt's question seriously, as they thought human reason too weak to uncover an answer.

Heidegger helped to put the question back on the map in the 20th century, though his contemporary, the equally great philosopher Ludwig Wittgenstein, had his concerns about the meaning of the question, though he was not sure that the question was meaningless, unlike the leader of the logical positivists A.J. Ayer. Another famous philosopher, Bertrand Russell, preferred the brute fact view which many thought science reinforced due to Big Bang Theory, but the Big Bang theory in fact made the question harder to ignore. Late 20th century philosopher Robert Nozick helped, along with others, to rehabilitate the question. In his own work he offered a huge range of possible answers, all of them bizarre.

So Holt classifies three types of answers to his question. Optimistic answers think the world must have a reason for its existence, pessimists think there might be a reason but that we'll never know, and then there are rejectionists who think there can't be a reason the world exists and so the question is senseless. All these approaches seem worth pursuing.

The motivation for pursuing an answer to this question is not merely intellectual but emotional. And questioners are divided according to whether they think existence is good or not. Many literary figures have been divided on the question and reactions to existence often depend upon one's view about its cause. But before delving in, Holt asks the reader to take a step back with him and consider the nature of nothingness.

Interlude, The Arithmetic of Nothingness, Chapter 3, A Brief History of Nothing

Interlude, The Arithmetic of Nothingness, Chapter 3, A Brief History of Nothing Summary and Analysis

Mathematics, Holt believes, came from nothing, that is the concept of "zero." The Greeks and Romans found the idea ridiculous, but Indians found it sensible given Buddhist philosophy. The transition from "0" to "1" in contemporary systems where the question makes sense, is vexed. Leibniz invented calculus to deal with it, by dealing with the infinite series it made possible. Modern mathematicians have raised the question of whether "0" understood as an empty set can be said to exist. That is, is there such a thing as nothing? If so, perhaps nothing can generate something. Where did a robust "Nothing" of this sort come from?

To answer this question, Holt argues in Chapter 2 that we must give a history of nothing. For much of history, people found the idea of nothingness deeply mysterious. Some theologians and existentialists found the idea of nothing morally and aesthetically evil. Angst is generated by the thought of nothing. Nozick suggested that nothing might be so abhorrent that it annihilates itself. Frustration with Nozick's answer led philosopher Myles Burnyeat to reject the sensibility of the question.

People have thought from ancient times that talk of nothingness makes no sense. To make sense of it, we might distinguish between "nothing" and "nothingness." "Nothing" just refers to "not anything." But "nothingness" is supposed to be a kind of reality, which some philosophers think self-contradictory. Some think that pure nothingness is unthinkable, for to think of nothingness is by definition to imagine something. However, we can't mistake a failure of imagination for an insight into how reality must be. Just because we cannot imagine nothingness without, say, consciousness or some residual form of existence, does not mean that nothingness cannot be. Yet, if nothingness existed, then there would exist at least one fact, namely that nothingness obtains. Even in a physicist's vacuum, a possible interpretation of nothingness, potentiality for existence obtains.

Some friends of nothingness argue that we can use a "subtraction" argument to demonstrate that nothing is possible, by assuming that the nonexistence of one thing does not entail that something else exists. But this "independence" assumption might be challenged, as approaching nothingness could be asymptotic, a state we can never reach via subtraction. Holt then reviews a number of mathematical and conceptual strategies for avoiding this alternative by characterizing the existence of a "Null World" that is logically consistent. Holy ultimately concludes that the Null World or the world of nothing, is both logically consistent, symmetrical, and least arbitrary, along with the

nicest "entropy profile" which he believes shows nothingness is possible. Given the metaphysical virtues of the Null World, why isn't it?

Chapters 4-5, The Great Rejectionist, Finite or Infinite?, Interlude, Night Thoughts at the Café de Flore

Chapters 4-5, The Great Rejectionist, Finite or Infinite?, Interlude, Night Thoughts at the Café de Flore Summary and Analysis

Holt opens Chapter 4 by reporting that a world famous philosopher of science, Adolf Grunbaum, sent him a letter, claiming that "there is no mystery of existence." Holt did not realize that Grunbaum was deeply hostile to religious belief and thought Holt's question was a false problem. In response to Grunbaum's letter, Holt traveled to Pittsburgh to chat with him. Grunbaum had acquired his disenchantment with religious at a young age. Partly as a result, he finds the existence of the world unastonishing. Assuming otherwise implies that the world needs an explanation, but only religious reasoning could lead one to assume that it did. When Holt presses Grunbaum that nothingness seems the most simple option, and so we need an explanation for why nothingness doesn't obtain, Grunbaum argues that conceptual and explanatory simplicity are different, and that nothingness only has the former. Another reason to reject Holt's question is that imagining nothingness giving way to something means assuming that there was a time prior to creation, but there is no such thing.

Holt claims that Grunbaum, the "Great Rejectionist" convinced him that the Big Bang does not by itself make the mystery of existence more pressing, as the Big Bang may well bring the origin of time. Grunbaum was also right that considerations of simplicity aren't decisive. But he was not convinced that the question is nonsense. Holt ends his trip to Pittsburgh with Grunbaum taking him to several sights around town.

In Chapter 5, Holt wonders whether our universe is eternal and whether, if it is, that means the universe does not need an explanation. He reviews philosophical claims that an infinite past is impossible, as we could never reach the present time, but thinks there is nothing absurd about the idea. He then reviews some of physic's models of eternal reality, such as the Steady-State University and the Oscillating Universe. Nonetheless, these models are controversial, which seems to favor a finite past.

Yet we must ask whether an eternal universe still needs a cause. Hume seemed not to think so, but Holt speculates that an eternal universe might be self-caused. And yet why think the chain of events that comprise an eternal universe exist in the first place? Not only could the eternal universe have been different but it might not have existed at all. Further, the Principle of Sufficient Reason suggests that self-causing things are absurdities, as a thing cannot create itself because it would have to exist before it existed in order to do so.

The interlude opens late at night at the Café de Flore in Paris, with Holt drinking with his friend Jimmy Douglas, heir to the Quaker Oats fortune. On his way to his hotel, Holt thought about all the philosophers who had spent time there that had considered his question, such as Leibniz, Descartes and Sartre. It occurs to Holt that there must still be thinkers who agree with Leibniz and Descartes that the universe is contingent and still needs a more secure, necessary foundation. He chooses the contemporary Christian philosopher, Richard Swinburne, a famous natural theologian. Swinburne thinks that the simplest hypothesis that explains the existence of the world is God. His original contribution is to try to use scientific reasoning to do so, specifically by using Bayes's Theorem. Holt then reviews hostile atheist replies to Swinburne's work.

Chapter 6, The Inductive Theist of North Oxford, Interlude, The Supreme Brute Fact

Chapter 6, The Inductive Theist of North Oxford, Interlude, The Supreme Brute Fact Summary and Analysis

In Chapter 6, Holt joins Swinburne for tea in Oxford, where Swinburne, a man in his mid-seventies and of great British charm and kindness, lives alone. Swinburne, who has argued with Grunbaum in the past, calmly explained that Grunbaum misunderstood his view (which Holt found to be an extremely charitable interpretation of Grunbaum's invectives against him). Swinburne defends God's existence on simplicity grounds, and argues that simplicity is a clear theoretical virtue. And for a universe with as much stuff in it as ours, the simplest explanation for it is the existence of God.

Holt then presses his question about an infinite universe, but Swinburne doesn't think the question is relevant. Even Aquinas thought the universe might be infinitely old but that it still needs an explanation. And it still needs to be organized for human life. Holt replies that many universes might exist, representing many configurations. But Swinburne replies that we would still need a law explaining how these constants varied across universes.

But is the God hypothesis simple? Swinburne's God is not mere infinite substance, but is rather complex. He mentions, for instance, that God can have complex thoughts without a complex brain because thought does not require matter. Holt finds Swinburne's dualism odd and so changes the subject. Swinburne is, after all, a Christian, so how can he believe in such an abstract God? Swinburne thinks that God of the Bible has always had these omni-properties, as implied in the texts. A good God, for instance, would be interested in his creation. Swinburne then goes on to elaborate more of his philosophical theology. Oddly, Holt thinks, answering the question of why there is something rather than nothing had led Swinburne not merely to God but to Jesus.

Holt then asks Swinburne why philosophers of religion disagree so much and Swinburne replies that all philosophers disagree, as philosophy is a difficult subject. Holt then wonders about why God exists. Swinburne thinks that nothingness is "most natural" in a way. But Swinburne acknowledges, contrary to earlier theists, that God's non-existence is logically possible. He then claims, in response to Holt, that God's existence is a brute fact. Holt replies that the universe might itself be a brute fact, and Swinburne acknowledges this is a possibility. But everyone must accept some philosophical starting point, Swinburne argues, and Holt agrees, but is not satisfied that God is a better explanation.

On Holt's view, discussed in the next interlude, Swinburne solves one mystery by raising another. God has no explanation, though he might not exist. Traditional theists think that God necessarily exists, so they can avoid the question of God's existence, but Swinburne cannot. So Holt reflects on this alternative by reviewing, among other things, the cosmological argument that purports to show that all contingent things require some explanation. But the cosomological argument is odd, as it shows something logical from something empirical (the existence of contingent beings).

Better to go with the ontological argument, which Kant thought was necessary to make the cosmological argument work, which purports to demonstrate God's existence by definition, an argument Holt then goes on to review. It was Anselm's creation and Kant is widely thought to have refuted it by claiming that "existence is not a predicate." Holt thinks Kant is clearly correct but he notes that the ontological argument has been altered and revived via the use of modal logic, used to show that God exists by none other than one of the greatest mathematicians in history - Kurt Godel. Alvin Plantinga, another prominent Christian philosopher of religion, tried to create his own version of what has come to be called the "modal ontological argument." Plantinga's argument avoids all the standard flaws but it rests on a major, odd assumption, namely that "it is possible that maximal greatness is instantiated in a possible world." And if it is possible that maximal greatness is not instantiated in at least one possible world, then the argument implies that God's existence is impossible. Holt then claims that even if the God of the ontological argument exists, it is hard to see how he could be a creator with free will, in contrast to Swinburne's God.

In sum, the "who created God?" question still seemed to be a live one for Holt.

Chapter 7, The Magus of the Multiverse, Interlude, The End of Explanation, Chapter 8, The Ultimate Free Lunch?

Chapter 7, The Magus of the Multiverse, Interlude, The End of Explanation, Chapter 8, The Ultimate Free Lunch? Summary and Analysis

The next figure in Holt's quest is David Deustch, who argues that reality mandates its own comprehensibility. On his view, the universe is a universal quantum computer that can simulate any physically possible reality. Deustch's own ideas began in the 1980s, when he became fascinated with the many worlds interpretation of quantum theory, the brainchild of Hugh Everett, following Alan Turing in trying to render the idea in computational terms. The promise of a quantum computer is that a single, buildable physical object could generate an entire multiverse of options. The view entails that "mind" is identical across universes, like a giant crystal that orders them all.

Apparently Holt had reviewed the book unfavorably in a public forum, which made things a bit tense with Deutsch from the outset. Holt had found implausible Deutsch's contention that the universe must end in a big crunch. But Deutsch still agreed to meet with him. As the conversation proceeded, Deutsch revealed that he thought that science shall never reach the limit of explanation. There is no ultimate explanation, but rather explanations all the way down. Even if we found a foundation for reality, we would at some point be unable to explain why it is the foundation. As to the question of why there is a fabric of reality, there is no reason to think that there is an explanation as the idea of a fabric is underspecified. Human beings offer explanations, which necessarily leave other things unexplained. Hence, we are cognitively incapable of hitting an explanatory wall. While Holt is unsatisfied with Deutsch's speculations, he realizes that there may be more to reality than we could ever imagine.

In the interlude, Holt reflects on the fact that Deutsch had offered up the odd option that any explanation needs explaining, and so while everything can be explained, no explanation is final. Holt thinks that ending the explanatory chain with a logically necessary truth cannot help, so we must choose between three unattractive options: circularity, infinite regress, and brute fact. Holt finds brute fact least objectionable.

Perhaps Nozick has offered another option, where a principle could potentially explain itself if it is "self-subsuming." When a self-subsuming principle is true, it explains why it is true. So perhaps a self-subsuming principle is preferable to a brute fact, though it does not eliminate explanatory loose ends. So unlike others, Nozick thought an ultimate principle might be able to explain itself via a principle of fecundity where all possible worlds are real. It would be the richest reality imaginable and had an odd structure.

There would also therefore exist null worlds, such that there is neither something nor nothing but both. But Holt worries that the principle of fecundity may generate contradictions. So while self-subsumption might help, the principle of fecundity is a poor candidate for one, as it entails contradictions.

In Chapter 8, Holt continues his quest with a meditation on quantum mechanics and its relation to the big bang, which apparently permits particles to come into existence from nothing. Perhaps Heisenberg's Uncertainty Principle rules out a null world such that nothingness is unstable. Perhaps then the universe of energy could be made out of no energy at all, a zero-energy universe described by physicist Ed Tyron. This isn't creation ex nihilo but create in the light of potential quantum fields. But we still want to know where that comes from. So Holt thinks that even this option is a poor option, not the last work. The universe is no free lunch.

Next Holt turns to consider the idea that a final theory of physics that unites all fundamental forces might bring with it an explanation of why there is something rather than nothing, leading Holt to focus on Nobel Laureate, physicist Steven Weinberg. Yet even Weinberg denied that a Final Theory could answer such a question. Nonetheless, Holt thought he should contact Weinberg and spend some time with him.

Interlude, Nausea, Chapter 9, Waiting for the Final Theory, Interlude, A Word on Many Worlds

Interlude, Nausea, Chapter 9, Waiting for the Final Theory, Interlude, A Word on Many Worlds Summary and Analysis

In the interlude, we fine Holt landing in Austin to meet with Weinberg only to discover that his dog has collapsed in his absence and has cancer that has metastasized and is going to kill him. Renzo had to be put to sleep. It was difficult for Holt to maintain his composure during the euthanasia. After saying goodbye to his dog, he calls Weinberg in Austin to talk to him.

Weinberg's basic line on Holt's question is that a final physical theory might provide an answer. It might explain, say, why there has to be something rather than nothing. Religion, for Weinberg, doesn't help. We just have to face a hard to comprehend universe. As Holt sees it, Weinberg emphasizes our ultimate need for epistemic humility. Hawking thinks that the final theory will fix all the initial conditions, but Weinberg says that view is premature. He acknowledges that the fine-tuning of the universe, likely apparent even given a final theory, is cause for wonder. He prefers the multiverse explanation. But he admits that even the multiverse won't solve all problems. Theories can't guarantee facts about reality, anyway, much like Anselm's ontological proof. They then review some alternatives, such as Nozick's principle of fecundity, but Holt still thinks Nozick's view is too "prodigal" and then they started to argue about whether it was.

Holt found it puzzling that someone so skeptical as Weinberg would be open to the wacky possibility of the principle of fecundity. The best we can hope for, again as Weinberg argues, is a final theory. But even a final theory could only raise new mysteries, how they have "ontic clout" or the ability to produce something from nothing. And we should still wonder why those laws exist. It is not even clear how laws explain phenomena, given that they are really summaries of observations. Thus Holt ends the chapter skeptical, but with a deep appreciation, due to Weinberg, of how scientific explanation works. But he is now convinced that no scientific theory can explain existence.

In the following interlude, Holt addresses the mystery of why there would be many worlds, that non-theists often appeal to in order to explain the existence of one world. We add to the questions of "Why anything?" and "Why this?" the question of "Why so much?" Swinburne thought that belief in other universes, of such a great number, was

deeply irrational with respect to consistency. Many universes is as much a faith-based answer as God.

But why believe in the multiverse? One argument is that they must exist due to features of our own universe and our theories about it. A weirder argument derives from the idea of "chaotic inflation" but neither sheds light on the question. A third reason, advanced by philosopher David Lewis, is that a multiverse can solve a number of other problems. But these aren't great arguments, and yet neither are some arguments against it, such as complaints that such speculation isn't science as this would make philosophy illegitimate, that Occam's razor speaks against the multiverse, but that depends on how you understand simplicity, and that the multiverse would make our world fake. The challenge is that on all versions of the multiverse view, they are contingent. We can't explain why they exist.

Chapter 10, Platonic Reflections, Interlude, It from Bit

Chapter 10, Platonic Reflections, Interlude, It from Bit Summary and Analysis

Platonism in philosophy is roughly the view that there exist mind-independent abstract entities like numbers and ideas that are timeline truthmakers of propositions that refer to them. 2 and 2 are four because two doubled equals four, both numbers abstract objections. While some mathematicians deny this (often called nominalists) many are proud Platonists. The suggestion in Chapter 10 is that this immutable reality is itself the answer to why there is something rather than nothing.

Holt didn't take this view seriously until he found out that Roger Penrose, one of the world's great physicists, was a Platonist and believed that our world is an outcrop of the Platonic world. Fortunately for Holt, talking to Penrose only required waiting for him to give a lecture in New York. When Holt arrives at Penrose's temporary apartment, Penrose tells Holt that there are three universes, the world of matter, the world of mine, and the world of Platonic forms. And yet Penrose maintained, following Pythagoras, that the world was composed of number. Holt's question for Penrose is how we come to have knowledge of number, especially in light of the fact that forms have no causal power and so it is hard to see how we can perceive them. Penrose's reply is that we can perceive number because we are composed out of it, at least the part that can contemplate Platonic truth.

Holt worries that the world of form itself cannot be the origin of the physical and mental worlds for a similar reason, as it is unclear how number can create. At least, however, the Platonic world seems to exist necessarily given that numerical and formal truths are logically necessary. And yet the existence of mathematical objects is not mandated by logic, only permitted by it. The argument for the existence of such a world is that the world of form is indispensible to describing the world. But philosopher of mathematics, Hartry Field, has argued that science can do without real numbers, as they're mere "accounting devices." Hence Holt is left totally unsatisfied. Mathematical Platonism is a non-starter.

In the interlude, Holt admits that his reflections on Platonic explanations of the universe led him to ask what the universe fundamentally consists in. Aristotle said reality was the combination of stuff and structure. But many philosophers think science has undermined Aristotle's view. They showed that many counterintuitive facts about the universe were true, such as that solidity is largely an illusion. Many physicists believe that the world consists entirely in relations, with no inner essence. This means that the world might be composed of information, summarized as the "it from bit" thesis. On these views, the universe may be a giant computer simulation. But its not clear how consciousness fits into that world, such as the way that thinks seem to us. The view of

the mind, which holds that mental states are themselves functional states, is called "functionalism" but it is subject to many counterexamples. Reality cannot be structure alone, as something substantive must be in it.

An interesting idea that arises from these reflections is that the world is ultimately composed not of number or information but of consciousness and mind-stuff itself. Consciousness on this view pervades nature, a view called "panpsychism." One of the great living philosophers, David Chalmers, defends this view, though he thinks that the constituents of the universe actually have both physical and mental manifestations such that "Experience is information from the inside; physics is information from the outside." And yet panpsychism faces the combination problem where its not clear how bits of consciousness fit together into a single consciousness. Despite this problem, panpsychism is philosophically attractive as it is monistic. It does not have to countenance fundamentally distinct realities, such as the physical world and the numerical world.

Chapter 11, The Ethical Requiredness of There Being Something, Interlude, A Hegelian in Paris

Chapter 11, The Ethical Requiredness of There Being Something, Interlude, A Hegelian in Paris Summary and Analysis

John Leslie, a famous cosmologist and English philosopher, has proposed a solution to the mystery of why there is something rather than nothing, something he called "extreme axiarchism" which holds that reality is ruled by abstract value. On Leslie's view, Plato thought that the nature of the good, a form, requires that ethical universes exist over nonethical universes like the Null World. Thus the universe exists because it is good for the universe to exist.

Holt thinks this idea is absurd, given how mediocre the world is. But Leslie's conception of reality is much larger. Existence, on his view, is essentially mental. In fact, it consists of infinite minds that know all that is worth knowing, including the structure of our universe. The physical universe is the contemplative product of one of these infinite minds. But why evil in our world? Because on the whole the universe is still good and so is worthy of contemplation by an infinite mind. Not all good requirements must be realized, though, but goodness is still required existence in a nontrivial sense. Somewhat surprisingly, Leslie has little patience for the traditional idea of God, as none of the infinite minds count as God. Instead, Leslie is closer to Spinoza in that we're tiny regions in an infinite mind. While Holt finds the option peculiar, it seems to have the virtue of explaining why something rather than nothing exists as opposed to alternatives. We can verify Leslie's view not merely be appeal to the existence of the world at all, however, but by appealing to the orderliness in nature.

Leslie is less impressed with the multiverse hypothesis, as it doesn't solve the mystery of fine-tuning, unlike his own view. The problem for the multiverse explanation is that the fine-tuning of variables is required for a great number of reasons, and a simple random distribution of values would not satisfy those requirements simultaneously.

Holt notes that to take axiarchism seriously, you must believe three things. First, you must believe that goodness is an objective value. Second, you must believe that the ethical needs that arise from goodness can create. And third, you must believe that the actual world is the sort of thing abstract goodness would bring into being. But these views are all contentious, especially the second claim. While Holt is unconvinced, he thinks Leslie may be right that the world is the creation of an abstract principle, though it is probably not bound up with human concerns.

In the interlude, Holt is sitting once against at a table in the Café de Flore. He is now reading Hegel's book the Science of Logic. Hegel is supposed to help him see the world is the most abstract possible way. That's the best hope to figure out why the world exists. Hegel has a doctrine of pure being, as laid out in the Logic, that explains that Pure Being and its opposite, Pure Nothing, are in tension or contradiction and so they must be reconciled in the form of Becoming. And then the Hegelian dialectic begins with thesis, antithesis to synthesis. There is no God exactly but rather an Absolute Idea in Hegel's philosophy. Ideas are the basis of reality. As Holt looks up from his reading, confused by Hegel like so many before him, he decides to leave Paris.

Chapter 12, The Last Word from All Souls, Epistolary Interlude, The Proof, Chapter 13, The World as a Bit of Light Verse

Chapter 12, The Last Word from All Souls, Epistolary Interlude, The Proof, Chapter 13, The World as a Bit of Light Verse Summary and Analysis

After Holt leaves Paris, he heads to Oxford, along the way stopping in a London Library, where he ran across an essay in the London Review of Books by English philosopher Derek Parfit called "Why Anything? Why This?" Holt was scheduled to meet with Parfit anyway, to discuss his question with him. He notes that one usually tackles the question by first asking why the world exists and then asking how. We might flip the order of explanation, which was Parfit's approach. Parfit first notes that there is a range of potential cosmic possibilities, representing ways the world could have turned out. Some of these possibilities have certain special features, say being the simplest, the fullest or the best. These properties Parfit calls "the Selector" which may explain how the universe exists, though Holt is not sure there is any such thing. Parfit has also suggested that there might be too selectors, such as being governed by laws and possessing simple laws.

But Holt has yet to meet Parfit when he arrives at All Souls College. When they settle down to lunch, Parfit begins to tell Holt his life story. He is now interested in moral philosophy and defending the view that morality is objective. Nozick and the others, Parfit thinks, are wrong. Nothingness is not a local possibility, but rather requires a reality consisting of the Null Possibility. Instead, they discuss Selectors and meta-Selectors, one of which will have to be a brute fact. Holt suggests three Selectors, simplicity, goodness and fullness. If there is no Selector, the Null World is not necessarily what follows, as the presence of nothing would be deeply random. Parfit seems to think that simplicity is the ultimate Selector.

After Holt leaves Oxford, he has an epiphany, which takes the reader to the next interlude. It takes the form of a letter to Parfit. The letter begins with Holt laying out two assumptions, first the Principle of Sufficient Reason and second that no truth explains itself. Holt thinks it follows that there is only one complete explanation for the form reality takes. Having no Selector violates the Principle of Sufficient Reason. Now suppose that a Selector does the explaining, but either there is an explanation for why the Selector worked or not. If not, we face another brute fact. But if there is an explanation, we must appeal to a meta-Selector. It could not be the same as the Selector, as this would violate the second assumption. So the meta-Selector cannot

select itself. So only two meta-Selectors can perform these roles, simplicity and fullness. Simplicity would not select simplicity as a Selector, as no selector is simpler and fullness would not select fullness as a Selector, as it would postulate more than one. Thus, the only universes that can exist are those that are both sufficiently simple and sufficiently full, that is generic realities. A generic reality would be infinite but would not include everything possible. It would have many special local regions, some empty and some full. And that is the universe we have, or the type, anyway.

In Chapter 13, Holt decides to speak with author John Updike. Updike, he notes, loves the universe and was not a pessimist. Updike was also a Christian and a fan of Kierkegaard and Barth. But Updike is no rationalist Christian like Swinburne. Updike is also fascinated by sex and death, all fascinations he pursues in his novels. Updike first explains why he liked theologian Karl Barth and how he came to appreciate him. Updike notes that the existence of the world is a kind of miracle, and he thinks all attempts at rational explanation are absurd, which he argues to Holt. He thinks God made the world in a playful spirit. Reality is a piece of light verse.

Holt ends by noting that a few months after he left, Updike was diagnosed with lung cancer. Within a year, he died.

Chapter 14-15, The Self: Do I really Exist?, Return to Nothingness, Epilogue: Over the Seine

Chapter 14-15, The Self: Do I really Exist?, Return to Nothingness, Epilogue: Over the Seine Summary and Analysis

Holt believes he has a proof that there must be something rather than nothing, but only if the universe is through and through an infinite mediocrity. But what explains what he, Holt, exists within it? The probability that he exists is extremely low, at least as a special person and not just a case of the species homo sapiens. Maybe he is something other than a purely biological being. Or perhaps there is no sense to this "I" term we use to refer to ourselves. Descartes thought the former, Hume the latter. Philosophers still disagree. Some think the self is the same as consciousness and self-consciousness. We are both the subject and object of our thought. Others draw a mere psychological picture of the self, where we are more or less continuous bundles of mental elements like memories. Parfit has shown that if materialism is true about the mind, then we may have little reason to think that we are persons or that who we are matters at all. Parfit finds this belief liberating and consoling.

Perhaps we should follow Nozick in thinking that reflexive awareness creates itself and so the "I" is self-creating. Some go further than Nozick in arguing that the "I" creates everything, all of reality, such as Hegel, Ficthe, Schelling, Husserl and Sartre. Holt then reviews some of their views. Sometimes Holt is struck, like some philosophers, that he happens to be who he is, whereas other times it does not seem mysterious at all. Unlike many philosophers, however, Holt is also puzzles by the possibility of his nonexistence.

In Chapter 15, Holt moves from his contingent birth to his necessary death, despite the fact that death is hard to imagine. The terror of death is not so much unending nothingness but of losing all the goods of life, for some. But for Holt it is the prospect of nothingness that scares him, though he notes that Parfit does not.

It was during his contemplations of this matter that Holt received a call that his mother was about to die, which was unexpected though not entirely. The next day Holt drives eight hours to see his mother in hospice care. When he arrives, she is receiving last rites from a priest. After spending some quality time with her, Holt watches her die and then alerted hospital staff. After sobbing much of the night, he awoke in his mother's house. On a morning job, he passed by many of the places where his various philosophical transformations had taken place. He realized he would not be reunified with his parents until he too died. Death was the real eternal home.

In the epilogue, Holt recalls going to Paris, just before the turn of the millennium, to the ninetieth birthday of Claude Levi-Strauss. Levi-Strauss gives a brief speech where he describes himself as a "shattered hologram" that lacks unity but still reflects the self. After the party, Holt goes to his hotel, turns on the TV and finds several people talking about why there is something rather than nothing. They all answer the question differently. A Buddhist monk suggests that the universe is an insubstantial dream, an illusion. Perhaps as Sartre said, it was gross, vicious and absurd. Or perhaps it was a divine gift. Or a quantum fluke. He reflects and decides that, one day, he shall write a book about it.

Characters

Jim Holt

Jim Holt is the author of "Why Does the World Exist?" and a philosopher and journalist by training. He is a sometimes science journalist for the New Yorker and the author of several books. However, Holt is also a character in the book, as it is a record of his attempts to make sense of his core question, "Why Is There Something Rather Than Nothing?" Holt as a trained philosopher both spends a great deal of time in the book explaining philosophical concepts and engaging and assessing the arguments of others. So he not only speaks directly to the reader but is a character in the main engagements and conversations in the book. It is he who interviews Grunbaum, Swinburne, Penrose, Updike and the like.

But there is another side to Holt's role in the book as well, since many of the interludes and some of the chapters are preoccupied with events in Holt's own interior mental life and his personal life as a whole. Many of his musings occur in conjunction with personal losses, such as the loss of his dog Renzo and the loss of his mother. We also find Holt in Paris on a few occasions, going to parties and wondering around in French Café's, sometimes stopping to read. Of greatest significance, then, is Holt's role in making the question vivid by showing how it operated within his life while he was researching for the book.

Derek Parfit

While there are many philosophers and physicists that play a role in the book, Holt seems most enamored with Derek Parfit, a philosophy at All Souls College, Oxford and widely regarded as one of the most important moral philosophers of the 20th and early 21st centuries. His work in personal identity and the meaning of life is of particular interest to Holt and prompts not only an entire chapter but a full interlude in the form of a letter to Parfit concerning Holt's "proof" for why there is something rather than nothing. Parfit is especially well-known for taking big philosophical questions very, very seriously, allowing abstract speculation to affect his behavior and thinking at a deep level. Holt admires this feature of Parfit, as much of the book reflects Holt's deeply emotional, along with intellectual, search for answers.

Parfit and Holt share an interest in Robert Nozick's Selector theory of why there is something rather than nothing. Given their similarities, Holt takes a great deal from Parfits speculation that there may be multiple Selectors that interact to restrict the set of possibly actual universes. They cover a number of candidates, such as Simplicity, Goodness and Fullness, each of which ranks possible universes in accord with the degree to which they manifest these respective properties. In Holt's letter to Parfit, he tries to follow Parfit's lead by developing his own account of Selector interaction.

Thomas Nagel

A contemporary moral philosopher and philosopher of mind now at New York University whose work on the nature of the self that Holt finds especially interesting.

Richard Swinburne

The "inductive theist" or North Oxford, Swinburne argues that there is something rather than nothing because a good God exists and would probably create the world.

Robert Nozick

While Nozick died before Holt could interview him, Nozick's ideas of universe Selectors and the principle of fecundity guide many of Holt's lines of thought.

Roger Penrose

The famous physicist whose Platonist account of the existence of the world merits an interview by Holt.

David Deutsch

A physicist who thinks that everything needs an explanation such that explanation of reality has no real limit.

Adolf Grunbaum

The famed philosopher of science who insists to Holt that his question has no real answer.

Andre Linde

Physicist Andre Linde created the theory of chaotic inflation, where a universe can be created from a very small amount of matter.

Steven Weinberg

The UT Austin physicist who thinks that we might be able to explain why there is something rather than nothing once we have a final or complete theory of physics.

John Leslie

The "axiarchist" philosopher who thinks the universe exists because it is ethically required.

John Updike

The famous Christian fideist who Holt interviews not long before Updike's death.

Renzo

Holt's dog who dies during the course of research for the book.

Holt's Mother

Towards the end of the book, Holt's mother dies, which causes him to reflect on the nature of death.

Objects/Places

Nothingness

An open question in the early part of the book is whether the idea of nothingness even makes sense.

The Universe

The total physical and mental reality that is covered by present scientific theory, separate from other possible universes.

The Multiverse

The term that covers the complete set of possible universes. Many of Holt's interviewees both believe in the multiverse and think that the presence of one helps to answer Holt's question.

Paris

This is the French capital city where Holt spends a lot of his philosophical time.

Theism

This is the most common explanation for the existence of the universe, namely the view that there exists a being known as God that is all-powerful, all-knowing, all-good and the creator of the universe.

Platonism

According to Holt, the ancient Greek philosopher believed that the universe emanated from "the form of the good" or the very idea of goodness. Platonism is thus taken as a possible foundation for axiarchism. But one can also be a Platonist about numbers, as is Roger Penrose, and try to bootstrap an explanation of existence from the existence of numbers.

Atheism

This is the denial of theism held by most of Holt's interviewees.

Axiarchism

This is the doctrine that the universe exists because it is good for it to exist. Or more broadly that things are the way they are because that is how they ought to be.

Quantum Mechanics

This is the most successful theory of the physical universe that some scientists believe could hold the secrets of existence.

Selectors

Abstract categories of value that "select" universes by demanding that they exist to manifest the property the selector selects. The idea advanced by Nozick is used by Holt and Parfit in the book. Holt appeals to Simplicity, Fullness and Goodness and tries to use the combination of Selectors to answer his question in a philosophical proof.

The Principle of Fecundity

This is the Nozick's principle that all possibilities are real.

The Ontological Argument

This is an argument for theism which holds that God must exist by definition, roughly speaking. Holt uses the ontological argument as a kind of foil for theistic explanations of the universe.

The Principle of Sufficient Reason

This is the principle which holds that for any contingent event, there is an explanation for why the event occurred and its particular qualities. The principle attained particular fame because Leibniz appealed to it. Some use the "PSR" to argue for God's existence or at least to motivate the idea that somewhere, somehow explanation must "bottom-out."

Themes

Why Is There Something Rather Than Nothing?

The theme of "Why Does the World Exist?" is not hard to discern, as its title suggests its primary theme. The theme of the book is to reflect and perhaps attempt to answer the question, "Why is there something rather than nothing?" This philosophical question, perhaps the deepest of them all, has been addressed by many of the greatest philosophical, theological, scientific, and literary minds in recorded history.

Holt addresses the question in a piecemeal way. His primary approach is to proceed by interview. He interviews a wide array of philosophers and physicists, along with some figures in literature. Each of these individuals gives an importantly different answer to the question. Some, like Swinburne, advocate a theistic answer to the question. Others, like Adolf Grunbaum, deny that the idea makes sense. Roger Penrose argues that the universe may exist due to the existence of abstract entities, such as numbers. And Steven Weinberg argues that we might be able to discern an answer to the question if and when physics reaches a "final theory" that provides a comprehensive explanation of all of physical existence.

During the interviews, Holt offers some of his own proposals and objections, often effectively pressing his interviewees on their answers. But Holt also makes use of a number of interludes to explore additional issues, such as explaining the nature of his ontological argument or recounting a letter he wrote to philosopher Derek Parfit providing his own explanation.

Personal Being, Pro and Con

While the primary theme of the book is trying to figure out why anything at all exists, a secondary theme is whether the self exists. In some ways, the nature of the self is at the heart of the book, given how much Holt ties answering the question to his own emotional struggles and questions. Reflections on the nature of the self lead one to ask what the point of existence is, because it may seem like a live option that you yourself may not have existed in the first place, unable to even pose the question.

And yet there is an independent, purely philosophical (non-emotional and non-existential) issue at stake. What is the self? Do we have one? Some think the self is an immaterial substance, like a soul. If so, then the death of the physical body and perhaps even the destruction of the entire physical world could leave the self intact. This is a view that Swinburne is somewhat friendly to. On the other side is philosopher Derek Parfit, who is sufficiently convinced of the falsity of dualism and the arbitrariness of a material self, that he denies that there is any sort of robust idea of the self that extends over time. Instead, we are a string of momentary experiences, which makes us much

less different than others than we might believe. Being a self is not what matters, in other words.

Holt seems closer to Parfit, but finds Swinburne's view attractive. He seems to ultimately find the existence of a temporary self both true and worthwhile.

Questions Without Answers

As one might expect, Holt's book is not written for a popular audience in order to force a single answer on them. The book instead provides the reader with a number of choices, with an assessment of the plausibility, philosophical costs and benefits of either position. These options include theism, nihilism, chaotic inflation, the selector view, and axiarchism, all options that Holt finds peculiar.

Theism simply raises questions about God, which seem no more tractable than questions about the universe. Nihilism about the question seems wrong, as the question seems both coherent and answerable. Chaotic inflation, based as it is on physics, cannot answer the question of why chaotic inflation occurs in the first place. The selector view is especially strange, as it is unclear what a selector is and how it could have causal power. Axiarchism is perhaps the strangest view of all, as it supposes that the universe exists because it would be objectively good for the universe to exist. And yet each of these views have their attractions.

Ultimately, Holt seems most attracted to a multiple-selector view, where embedded in the foundation of reality are a number of values, most clearly simplicity, fullness and goodness, that limit the set of possible universes to a handful and then realizes those universes in existence. And yet Holt's defense of this view lies largely in a letter to Derek Parfit that he never quite follows up on. So we know where Holt's sympathies lie, but he still leaves the book open to many potential answers.

Style

Perspective

Jim Holt, the author of Why Does the World Exist, is a philosopher and journalist. His aim in the book is to introduce the reader into the various ways (a number of contemporary) intellectuals address the question of why there is something rather than nothing. So his perspective is, in the first instance, as a philosopher prepared to introduce a highly abstruse subject matter to a wider audience than the question usually receives.

Holt's perspective has two distinguishing characteristics, which we can understand in terms of the sorts of answers he rejects and whether he is the sort of writer after answers in the first place. With respect to the first matter, Holt takes a number of positions. Contrary to Adolf Grunbaum, Holt believes that the question of why there is something rather than nothing makes sense. Further, contrary to a number of thinkers, he believes in the Principle of Sufficient Reason, the principle which holds that contingent events and beings have explanations. So he is unhappy with "Brute Fact" replies to his question. Instead, he seeks the deepest sort of explanation he can. Second, Holt is relatively unfriendly to theistic answers. He does not find appeals to God as an explanation of why there is something rather than nothing satisfying because they raise as many questions about God as they answer about the universe. Third, Holt dislikes non-parsimonious answers, as they violate attractive principles of explanatory simplicity.

The second distinguishing characteristic of Holt's perspective is that he is not inclined to give direct answers. While he does present a proof of the existence of the universe based on a complex "Selector" model, he only offers this in a letter to Derek Parfit. Instead, much of the book addresses Holt's struggle with the question and his interest in presenting the reader with a number of different options.

Tone

The tone of Why Does the World Exist is variable, but generally rangers between (i) the dry and informative, (ii) the enthusiastic and awe-filled, (iii) the suspicious and skeptical and (iv) the despondent and existential. Tone (i) manifests in passages where Holt explains complex issues. Examples include passages such as his explanation of the ontological argument or his attempt to lay out Nozick's Selector Theory. Tone (ii) is most obvious when Holt is preparing to engage one of the big figures in the book, such as Parfit, Swinburne, Leslie, Grunbaum, Penrose or Weinberg. His expectations are often high and while his conversations are rarely disappointing, the philosophical issues typically depress the tone a bit as Holt focuses.

Tone (iii) arises most often in Holt's interviews and his thoughts about the interviews that follow them. Holt is mostly dissatisfied with the answers he is offered, and while he always learns something form interacting with his interviewees he frequently poses them hard questions and is uncomfortable with their answers. Tone (iv) is present most forcefully in some of the interludes, where Holt must deal with a personal struggle, such as the death of his dog Renzo or the death of his mother. In these passages, Holt focuses on the real-world, lived implications of giving answers to his question.

Sometimes tones are combined, as in Holt's letter to Parfit, which combines tone (i) and tone (ii), as Holt believes he has come as close as he can to an answer to his question that would satisfy him.

Structure

Why Does the World Exist? is, for a popular work, a lengthy and dense though well-styled 320 pages. The book is composed of fifteen chapters with a number of interludes interspersed between them. Most of the chapters are built around an interview with a particular intellectual who has a specific and unique take on Holt's main question, namely why there is something rather than nothing. These chapters are not literal transcripts, however, as they involve reports of Holt's reactions and what are undoubtedly somewhat stylized conversations. Holt does his best to both paint a picture of the character and to communicate the strengths and weaknesses of his particular viewpoint.

The interludes, however, play a different role in the structure of the book. My and large they perform two function. The first is as a transition between chapters, often with some form of more descriptive narrative that involves Holt's travels, whereas the second is exposition of certain key ideas that are hard to explain in the context of the chapters. The interludes may seem to be less significant, but in some ways they are the most important parts of the book, if for no other reason than we get much of the author's humanity and intelligence here along with his attempt to provide his own answer as to why there is something rather than nothing.

Thus, the structure of the book is a series of stylized and narrated interviews concerning particular answers to the question of why there is something rather than nothing. This is interwoven with some of Holt's emotional struggles and clear expositions of complex philosophical conceptions.

Quotes

"It was in the opening pages of the latter book, with its promising title, that I was first confronted by the question Why is there something rather than nothing at all?" (Chapter 1, 4)

"Are we then doomed to choose between God and the deep brute Absurd?" (Chapter 1, 8)

"The motives for pursuing the mystery of existence are not just intellectual ones. They are also emotional." (Chapter 2, 30)

"But that, of course, presumes there is Nothing to start with." (Interlude, 40)

"The virtues of the Null World are manifold and undeniable when you think about them, but they only serve to make the mystery of existence all the more mysterious." (Chapter 3, 62)

"There is no mystery of existence." (Chapter 4, 63)

"The temporal finitude of our universe—here today (but not yesterday), gone tomorrow—makes its existence seem all the more insecure and contingent. And mysterious." (Chapter 5, 81)

"There was something numinous in his logic. The question Why is there something rather than nothing? Had led this philosopher not just to God, but all the way to the historical person of Jesus Christ." (Chapter 6, 103)

"From the perspective of the quantum multiverse as a whole, mind is a pervasive ordering principles, like a giant crystal." (Chapter 7, 122)

"Nothingness is unstable." (Chapter 8, 141)

"The next day, I called Steven Weinberg at his home in Austin to talk about why the world exists." (Interlude, 153)

"The effort to understand the universe is one of the very few things that lifts human life above the level of farce, and gives it some of the grace of tragedy." (Chapter 9, 163)

"All is number." (Chapter 10, 177)

"It from bit." (Interlude, 189)

"In my grand vision what the cosmos consists of is an infinite number of infinite minds, each of which knows absolutely everything which is worth knowing. And one of the things which is worth knowing is the structure of a universe such as ours." (Chapter 11, 200)

"Then, walking one evening in the tonic squalor of the East Village, a million miles from All Souls, I had an epiphany. The last piece of logic snapped into place. I had the proof." (Chapter 12, 236)

"Thanks for this message, which is very interesting. I shall have to think about it carefully ..." (Epistolary Interlude, 242)

"Reality is not a 'blog on nothingness,' as Updike's character Henry Bech had once, in a bilious moment, decided. It is a piece of light verse." (Chapter 13, 252)

"The existence of this cosmos can be fully explained only on the assumption that it is middling in every way." (Chapter 14, 254)

"No, it is the prospect of nothingness that induces in me a certain queasiness—if not ... outright terror." (Chapter 15, 268)

"I would not be reunified with my parents until I, too, entered the nothingness that had already absorbed both of them. That was the real eternal home. And now I had a clear run to the Void." (Chapter 15, 275)

"Philosophy, n. A route of many roads leading from nowhere to nothing." (Epilogue, 279)

Topics for Discussion

Why is Holt interested in the question, "Why is there something rather than nothing?"

What is Holt's preferred answer to his core question? Where in the book is the answer located? Explain the view in detail.

Recount the main details of Holt's interaction with Richard Swinburne. What is Swinburne's answer? What are Holt's concerns about Swinburne's answer?

Recount the main details of Holt's interaction with Derek Parfit. What is Parfit's answer? What are Holt's concerns about Parfit's answer?

Recount the main details of Holt's interaction with Roger Penrose. What is Penrose's answer? What are Holt's concerns about Penrose's answer?

Recount the main details of Holt's interaction with John Leslie. What is Leslie's answer? What are Holt's concerns about Leslie's answer?

After reading the book, what do you think is the best answer to the question of why there is something rather than nothing? Defend your answer.