

The Fall and Hypertime, by Hud Hudson, New York and Oxford: Oxford University Press, 2014, 211 pages, \$65.00 (hardcover).

EDWARD WIERENGA, University of Rochester

In this exciting and challenging work, Hud Hudson attempts to stimulate the dialogue between religion and science by demonstrating the important role that analytic philosophy, especially metaphysics and epistemology, can play in that conversation. Analytic philosophy can particularly come to the aid of the theological side of the dispute by helping theology develop a formulation of doctrines that otherwise appear inconsistent with science.

The dispute that Hudson has in mind is not between science and religion generally, but between science and three claims of specifically Christian doctrine. Along the way, one of those claims is dropped from the discussion, and, in the end, Hudson's positive support of the other two strikes me as disappointing and of dubious comfort to their adherents. But the path to that conclusion is stimulating and illuminating, with connections to a range of interesting literature, astounding and original philosophical, especially metaphysical, claims, and a delightful writing style that makes the entire journey an exciting adventure.

The doctrines in which Hudson is interested are those of the Fall, Original Sin, and Original Guilt. The Fall, as recounted in Genesis 3, is the first sin of Adam and Eve in the Garden of Eden and the consequent corruption of their nature and of the world. According to the doctrine of Original Sin, all of the descendants of Adam and Eve, which includes everyone, are themselves inclined or disposed to sin. In addition, according to the doctrine of Original Guilt, all of these

descendants are also themselves guilty of the sin committed by their remote ancestors, Adam and Eve.

In the first chapter Hudson gives a description of the dialogue between science and religion and sets up his claim that “philosophy . . . deserves a clearly marked place at this conversational table” (1). This is followed, in Chapter 2, with a description of the development of the three doctrines, primarily in western (Latin) Christianity as drawn from some biblical passages and, especially, under the influence of Augustine. Hudson notes a variety of ways in which these doctrines have been formulated and leaves it open whether the Fall “is to be construed as a genuinely historical event involving a first or primal sin or as a non-historical shared sense of separation” (22). He also leaves it open whether the consequence of that sin was a corruption merely of the original agent or whether it was transmitted to that agent’s progeny and, if so, whether the corruption is a mere privation of a divine gift or “an inescapable and crippling state of disordered desire tempting one to ever further sin,” which in its harshest interpretation is “a desperate plunge into total depravity” (22). The rest of this chapter recounts discoveries in astronomy, physics, evolutionary biology, and other sciences that seem inconsistent with traditional understandings of these doctrines. For example, the universe and our solar system are each way too old for the account in the first two chapters in Genesis of the creation the world and its inhabitants to be accurate (24), geological history does not suggest any “special and protected location,” like the Garden of Eden, where “inhabitants were safe from the powerful natural forces that tore continents apart,” and, in any case, “disease, death, and extinction” long precede any human presence or activity and is thus not a consequence of the first human sin. In addition, modern humans originated in savannahs in Africa rather than in Mesopotamia, and our first ancestors capable of

moral failure “were separated by many millennia from the farmers and shepherds portrayed in Genesis as the first post-Fall generation” (25).

Chapter 3 presents several “concessive strategies”, reinterpretations of the three doctrines, designed to make them more palatable. In the case of Original Guilt (to be considered again in the following chapter), the prospects are not promising. Except to the extent that it presupposes the other two doctrines, and is thus subject to objections to the latter, the primary objection to it is not scientific but moral: it charges us with guilt for an event that happened long before we were born and which we had no power to prevent. The bulk of this chapter consists of an extended presentation of and commentary on Peter van Inwagen’s “literary refashioning of materials drawn from myth and legend” in his Gifford Lectures, which Hudson thinks is “overwhelmingly plausible” (43).¹ In this story, God controlled the course of evolution, and he gathered a breeding community of human ancestors to whom he gave free will (to enable them to love) and whom he raised to rationality. These human beings lived in harmony and protected each other from harm, disaster, and disease. Thus, there was no evil in their part of the world, until they separated themselves from their relationship with God. The results were that they came to face destruction by violence and they developed an inborn tendency to do evil. There are many more particulars to the story, including statements of God’s planned response to this situation, and Hudson’s discussion of them is detailed and illuminating. I will simply note some of Hudson’s conclusions. He takes the story to invoke a historical fall and occurrence of original sin that could contribute to a defense against the problem of evil (53) and that by not including references to specific individuals, times, and places, it “steers clear” of the findings of natural science that seemed incompatible with the traditional versions of the doctrines. Surprisingly, this story, when filled out more fully than my brief summary, might provide all that is needed to establish a compatibility between the results of science and these two Christian

doctrines, suitably revised, without requiring an appeal to Hudson's primary conjecture, the "Hypertime Thesis".

The story from van Inwagen does not mention anything supporting Original Guilt. Indeed, Hudson concludes the chapter by saying that he himself is not committed to that doctrine (54); nevertheless, he devotes the next chapter, 4, to a discussion of a strategy of defending the doctrine against objections. These objections claim that the doctrine falsely charges us with guilt for an event that we had no power to prevent because it happened long before we existed. It is here that Hudson introduces some high-powered metaphysics.² He appeals to Four-Dimensionalism, the view that things that persist through time, including human persons, are four-dimensional objects that have temporal parts at various particular times. Hudson is sympathetic to Four-Dimensionalism in part because of its ability to deal with (imagined) cases of fission. If someone undergoes a brain bisection with each hemisphere implanted into a different brainless body, with the original body being destroyed but the freshly encephalonized bodies being living persons, it would be "absurd" to say that the resulting persons are each identical to the original person because "the resulting persons are two, not one, and . . . identity is transitive" (61-62). Instead, according to the formulation of Four-Dimensionalism Hudson prefers, there are two persons all along. Prior to the transplant they had shared the same body—they had the same temporal parts—and later they do not. Hudson's formulation of Four-Dimensionalism also allows for temporal gaps in a thing's existence. This feature and the possibility of sharing temporal parts open a possible response to the objection to Original Guilt. Supposing that there was one original sinner, Adam, the proposed solution suggests that Adam initially shared all of his temporal parts with every human being who was born after that first sin. After the sin, Adam underwent fission, and all of the other people with whom he shared those temporal parts—beginning with his children and continuing until all of us at

the present time—have a gap in their existence. Since everyone overlapped Adam at the time of the first sin, we all had the same power of prevention he had. Thus, the objection is mistaken in claiming that we had no power to prevent that act, and it was not something that happened long before we existed (63). (Hudson does not consider how Eve became infected with Original Guilt. Eve came into existence before Adam sinned, so she did not share a temporal part with him when he sinned. In addition, according to Genesis 2:16-17, God’s command not to eat the fruit of the tree of the knowledge of good and evil was issued before Eve came into existence, so she seems not to be subject to that command, either. Here is a proposal: Eve did share temporal parts with Adam prior to her being fashioned—sharing a rib is at least sharing a part of a part!—so the command applied to her as well as to Adam, and her action was thus also a sin.) Hudson follows his initial presentation of this defense with an intricate and instructive series of objections and replies. In the end, he rejects the defense of Original Guilt. Among other reasons, he holds that the temporal parts of Adam, existing thousands of years ago, do not stand in the right psychological or causal relations to our temporal parts shortly after our births for these parts to be stages of the same person (67-68), and he rejects the suggestion due to Rea and Jonathan Edwards that the connection is “grounded in an objective similarity determined by God to serve the function of uniting certain pluralities of person-stages into a single person” (69).

Chapter 5, “Metaphysics and the Hypertime Thesis” introduces the really serious metaphysics, mentioned in the title of the book and discussed in most of the rest of it, the Hypertime Hypothesis. I *think* that the Hypertime Hypothesis is the claim that *there is* such a thing as hypertime, but perhaps it is the weaker claim that it is *possible* that there is such a thing (88). In either case, we can at least make an effort to understand what hypertime is. Hudson introduces it by mentioning several understandings of what existence and spacetime are like. According to

Presentism, only present things exist—things from the past no longer exist, and things in the future do not yet exist. In contrast, Eternalism holds that past, present, and future things all exist. On the latter view, spacetime (89), the universe (190) or Reality³ is a *Block*, a four-dimensional slab of three-dimensional objects and the fourth dimension of time. The presentist could admit something like an extremely thin slice of the Block (or hyperplane) existing very briefly and being replaced by new such slices at each instant of time, but according to presentism, no larger block ever exists. A third view, the *Growing Block* universe combines elements of both of these views. Past objects exist forever after, but future objects do not yet exist. Thus the Growing Block is like a Block for all times prior to the present, but at each instant it has a leading edge that is like the slim slice of the presentist. As time goes by, what was the leading edge retreats back into the Block as new leading edges are continually added to the front of the Block.

Early discussions of the Growing Block theory assumed that there had to be a “second temporal dimension” (86) in order to measure the rate at which the Block grew. Although many defenders and opponents of the view came to believe that the Growing Block did not require the existence of such a second temporal dimension, Hypertime, Hudson regards it as a philosophically useful idea that can be used to measure alternative combinations of spacetime points that coexistence at different times (81).

Of course, there would be no difference between what happens at ordinary times and what happens at hypertimes unless some remarkable changes occur in the universe. One example, mentioned by Hudson (88), is van Inwagen’s (2010) discussion of time travel, in which if at t_2 someone travels in a time machine back to an earlier time t_1 , then the part of the Growing Block that came after t_1 is lopped off and the Block regrows at the normal rate but most likely in a different way. According to ordinary time, after t_1 it will always be the case that there was an arrival of a time

machine in the past, so the time travel does not really change the past. But the past as measured by hypertime will have changed, for an observer of hypertime will realize that it hyper-was the case that there was no time machine at hyper- t_1 but that hyper-later it hyper-was the case that a time machine arrived at t_1 . In the case of the annihilation of a chunk of the block, ordinary time resets to the current leading edge, whereas hypertime sort of loops back to the current leading edge while maintaining all of the hyper-instants it has previously recorded. (This point about what is required for hypertime to differ from ordinary time suggests another interpretation of the Hypertime Hypothesis, namely, that it is the claim that actuality contains “other spacetime blocks located hyperearlier and hyperlater” (128), that is, that reality truly does have some features that hypertime tracks differently from ordinary time. Further support for this interpretation is found late in the book, when Hudson says that the Hypertime Hypothesis is one of several “alternative portraits of a multiverse” (171).)

Although Hudson mentions using the resources of hypertime to allow for backwards time travel (88), his own extended example (89-91) is that of a disastrous escape in space chosen by Captain Quag. After things end badly, the entire final Block until shortly before Quag’s calamitous initial decision is annihilated and in its place a favorable history grows, beginning with Quag plotting his interstellar voyage in an importantly different direction. Hudson does not say what brings about the cutting off of a large chunk of the block, although, as we see when we get to his last chapter, he thinks that this is something God could do.

One final bit of detail: Although Hudson develops his explanation of hypertime by linking it to the Growing Block, he thinks that it could be associated with the Eternalist Block and with Presentism (108ff.). In addition, Hudson mentions several other conceptions of blocks, including Shrinking Block and Disappearing Block. Of particular relevance is Morphing Block (82-88), which

allows that the Block could be “slimmed down” by having inner sections removed, like the way in which the Growing Block could have its final section cut off. In addition, Hudson also thinks that a block could have an alteration of everything preceding its leading edge (89). This last claim will be important in the final chapter of the book.

Before returning to the topic of the fall, Hudson devotes three chapters to other applications of the Hypertime Hypothesis. The first addresses topics in epistemology and asks whether responses to skepticism could be adapted to skepticism about Hypertime. Hudson concedes that many would think it to be “a bit of fantastical, speculative metaphysics, more suitable as a source of science fiction than for engaging seriously with ourselves and the world” (115), but he argues that “we do not know it to be false” (132-133) and that it is at least an epistemic possibility.

The next chapter begins with a discussion of historical and recent accounts of divine omnipresence, and it identifies a list of puzzling issues any adequate account should address. In previous work,⁴ Hudson had appealed to recent work on the metaphysics of location or occupation of material objects. He now repeats some of those ideas in order to apply them to location of any object, including a divine being. The leading notion is the concept of *entends*. An object *entends* just in case it is entirely located at a region (it is located at that region and no part of it is located outside that region), it is wholly located at that region (no proper part of it is not located at that region), and it is wholly located at every subregion of that region. A material object that *entends* is an extended simply. Hudson thinks that it makes sense to say that God *entends*, and he shows how this view can address the puzzling issues about omnipresence. His discussion is lucid and sophisticated, although hypertime plays no role in it. Hypertime returns to the scene with the next topic, divine eternity. Here Hudson appeals to his suggestion that God’s location depends on his extension and proposes that God is present in this way at every hyperplane. Accordingly, God is present at the hypertime

associated with each hyperplane. If hypertime is distinct from ordinary time, “locating God in hypertime would furnish a non-temporal realm from which God could create and interact with the world” (155).

In the penultimate chapter Hudson displays a trio of objections to the existence of God, formulated as contradictory triads which include claims about insufficient justification for evil and the absence of a best possible world—I am suppressing important details here. Hudson’s reply to these objections is to suggest that what exists is a multiverse and that what we take to be the world is really just one partition of a vast array. Things could have been better than the small part that appears to us, but the multiverse as a whole “provides a stage on which God can create everything worth having simply by partitioning goods, rather than being forced to sacrifice one good to obtain another” (177). There is much that I fail to grasp here, but perhaps the most important one for this review is the role the Hypertime Hypothesis is supposed to play here. How does it contribute to the overall value of the multiverse that its various partitions or regions are somehow all connected by a single dimension of time, beyond it simply being the case that such a variety of components exists. As Hudson had put it in his earlier treatment of these issues, without mentioning hypertime, “the many independent regions of a plenitudinous hyperspace provide . . . the resources to affirm a perfectly good sense in which both God creates the best world and our own world is not the best” (*The Metaphysics of Hyperspace*, 166).

In the final chapter Hudson returns to the two themes with which the book begins, namely, the doctrines of the fall and original sin and the claim that these doctrines are not incompatible with the discoveries of recent science. Hudson begins by suggesting a way in which a literal interpretation of the biblical account of the fall could have happened (or at least, could have hyperhappened). Hudson tells a story in which at a very early hypertime in the block universe

God created a spacetime and its contents whose earliest stages of growth witnessed the forming of a man from the dust of the ground, the planting of a garden into which he was placed, the adorning of that garden with trees and rivers, the imposition of a restriction on his diet, the presentation and naming of the animals, the extraction of a rib from and creation of a companion for him, the fateful discourse of a snake . . . and a rebellion that took the form of eating forbidden fruit. As the block grew, this once naked and innocent pair fashioned clothing, [and] . . . confessed their disobedience. . . . Finally, driven out of the garden, they and their world underwent a spectacular change.

At the hypermoment the pair exited the garden . . . God annihilated every piece of the block save that region on its outermost edge thus occupied by these ancestors of ours and then embedded that very region and its contents in a new block—a block sporting a several-billion-year history, replete with ice ages, long-dead hominids, dinosaurs, . . . even a big bang.

In fact, their brave new world—the very block universe that is hyperpresent now—is remarkably accurately described in great detail by the many branches of contemporary science. Moreover, this special pair of our ancestors themselves had ancestors from whom they descended in precisely the manner taught by evolutionary biology. (190-191)

What is in the past now, according to ordinary time, is determined by the features of the blocks that are now in the past. Thus, after the replacement of the block prior to the

expulsion from Eden with a vastly larger block, there are now blocks of the universe featuring ice ages, early hominids, and the rest. So, all of that is now past. But what “separates history from hyperhistory is quite simply that, whereas for each instant of hypertime, the facts about what is past and present are determined by the features of the block in existence at that hypertime, the features of the block at one hypertime need not constrain its features at other hypertimes” (188, also 89). Accordingly, there is a hypertime in the past where the block in existence at that hypertime included our human ancestors who lived an idyllic life in a lovely and safe garden and were completely innocent. Thus, there hyperwas such a couple living such a guiltless life.

How does this story establish that biblical literalism is compatible with the deliverances of current science? Hudson’s claims are that the Hypertime Hypothesis makes this story possibly true and that science has not shown that the Hypertime Hypothesis is false. He thus concludes that the claims of science are compatible with this story. As he puts it, “for all I can tell, [the scientific] worldview is consistent with a metaphysics that permits us to *eat our cake and hyper have it too*—that is, that allows us to say that there never was such a garden but also that there hyperwas” (192).

The claim that although there never was such a garden but there hyperwas is not likely to satisfy literalists, who seem to claim that this story occurred in our own past. Moreover, they typically deny many of the claims of modern science, for example, about the age of the earth, the origins of species, and the extinction of dinosaurs before the existence of human beings. Perhaps there is another story that would handle some of these disputes. Suppose that God created another block in which all species, including dinosaurs, come into existence at the same time, that pairs of all of them load on the Ark and stay there while a flood covers the earth, and then God slips this block briefly between two hyperplanes before annihilating it. If this happened, there hyperwould have

been dinosaurs on the Ark and there hyperwould have been a great flood, even though there were not. Additional manipulations like this might succeed in bringing more things literalists affirm into the hyperpast. But they still would not bring such things into our own past. Hudson realizes that his story does not put the Garden of Eden into our own past but only into our hyperpast. His response, however, is only that the traditional commitment that the Genesis events happened “may prove to be a commitment neutral between history and hyperhistory” and that if his insertion of them into hyperhistory is “ultimately rejected on theological grounds” he has nevertheless successfully blocked “conclusive dismissal of literalism by way to appeal to the science of our modern world view” (193). I think, however, that literalism with respect to a person or an event is stronger than the claim that the person exists or the event occurs in a block that is possibly but at most temporarily attached to or a part of reality.

I am also not convinced that Hudson’s story has all of the features he claims for it. One is his claim that after the large scientifically accurate past is attached to the leading edge containing the expulsion from the Garden, “this special pair of our ancestors themselves had ancestors from whom they descended in precisely the manner taught by evolutionary biology.” When van Inwagen’s time machine arrives at an earlier time, neither the machine nor its occupant has a cause at that time. That is because merely being in a hyperplane that is placed directly after another hyperplane does not establish any causal connection between the two slices. For the same reason, that special pair would not have acquired any of their traits or genes from anything in their newly acquired past. I also am not persuaded that this pair, even if they really did end up in our history, are our ancestors, at least not the ancestors of very many of us. This is because many of us today are descended from human ancestors whose trek out of Africa did not include a schlep through ancient Mesopotamia and thus are not descendants of the more recent couple from the Garden. But if this right, then

Hudson's story offers no support for Original Sin, because most of us do not have the right connection to that pair of sinners.

I have ended this review with some criticism of Hudson's concluding chapter. But this should not detract from the fact that there is so much in this book of great interest, including topics I have not had space to mention, all discussed in ingenious and interesting ways.

NOTES

¹ Peter van Inwagen, *The Problem of Evil* (Oxford: Oxford University Press, 2006), pp. 84ff.

² Hudson acknowledges here the influence of Michael Rea, "The Metaphysics of Original Sin," in Peter van Inwagen and Dean Zimmerman, eds., *Persons: Human and Divine* (Oxford: Oxford University Press, 2007), pp. 319-256.

³ The term Peter van Inwagen uses in his description of hypertime, an account that Hudson cites. See van Inwagen's "Changing the Past," in Dean Zimmerman, ed., *Oxford Studies in Philosophy of Religion* 5 (2010): 3-28, p. 14.

⁴ Hud Hudson, *The Metaphysics of Hyperspace* (Oxford: Oxford University Press, 2005), chapter 5.