

# Argumentum ad nihilum: argument amounting to nothing

A Review of  
*Creation out of  
Nothing*  
by Paul Copan and  
William Lane Craig  
Baker and Apollos,  
Grand Rapids,  
MI, 2004

Andrew S. Kulikovsky

The authors present this work as a biblical, philosophical and scientific defence of the doctrine of creation *ex nihilo*. Paul Copan, who is a philosophy and ethics professor at Palm Beach Atlantic University, and William Lane Craig, who is a research professor of philosophy at Talbot School of Theology, are both high profile evangelical philosophers. William Lane Craig in particular is one of the top philosophers in the world today. Both, however, are committed old-earth creationists.

## Myopia

In the introduction, Copan and Craig cite Princeton theologian George Hendry, who pointed out that the doctrine of creation had been neglected, and claim that this was not rectified until the publication of books in the 1980s and early 1990s by Claus Westermann, Wolfhart Pannenberg, Colin Gunton and Robert Jenson among others, all of whom are theological liberals. This is a very surprising claim and reflects the authors' myopic view on the issue. Have they really not heard of Herbert Leupold, E.J. Young, Gerhard Hasel, John Whitcomb and John J. Davis? Or even Jewish scholar Umberto Cassuto?

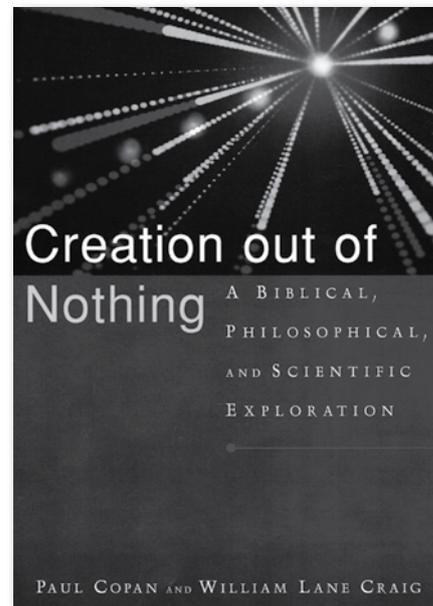
## Big bang dogmatism

The authors' preference for the big

bang cosmology is revealed early on when they ask (p. 16, fn 41): 'why did so many contemporary scientists resist big bang cosmology? Because it too closely resembles Gen. 1!' Despite the authors' mastery of philosophy, such a comment reveals that either their exegetical methodology or their understanding of big bang cosmology (or both) is sadly lacking. Like most old-earth creationists, they hold to the 'two books of revelation' concept and therefore consider modern scientific consensus to be just as much the word of God as the Bible.<sup>1</sup> It is also just as fallacious as a theistic evolutionist claiming that Darwinism must be OK because the atheists Stalin and Lysenko rejected it in favour of neo-Lamarckianism.

In chapter 1, Copan and Craig present Scriptural evidence from the Old Testament supporting creation *ex nihilo*. They rightly affirm the uniqueness of the account and its superiority over other ancient near eastern accounts such as *Enuma Elish*. They also rightly affirm that  $\text{tyv\`ar\`b} (\text{b}^{\text{r}}\text{e}^{\text{'}}\text{š}\text{it})$  in Genesis 1:1 is in the absolute form rather than the construct form. I.e. the traditional translation 'In the beginning, God...' is correct and the alternative 'In the beginning, when God...' is grammatically awkward and contextually unsustainable.

The authors also understand the *toledots* in Genesis as introducing a new section of the narrative rather than being colophons, and rightly point out that although  $\text{ar\`b} (\text{b}\bar{\text{a}}\text{r}\bar{\text{a}})$  does not inherently refer to creation *ex nihilo*, the context clearly implies this. They subscribe to the traditional view of a two step creation process: that God first created the raw materials *ex nihilo*, and then formed these materials into the universe in which we now live. The days of creation, however, are not discussed.



New Testament evidence for creation *ex nihilo* is examined in chapter 2. The authors cite John 1:3, Romans 4:17 and Hebrews 11:3 as implicitly teaching creation *ex nihilo*. However, they object to the NIV rendering of 2 Peter 3:5<sup>2</sup> because they believe it is incompatible with creation *ex nihilo* and breaks up the unity of the heavens and the earth as presented in Genesis 1:1. Their concerns, however, are unwarranted. They (rightly) hold to a two step creation process: (1) the creation *ex nihilo* of raw materials; (2) the formation of those materials into the universe as we know it. Thus, 2 Peter 3:5 should not be seen as being parallel to Genesis 1:1 (the creation *ex nihilo* of raw materials) but parallel to Genesis 1:6–9 (the formation of the expanse/sky and the dry land from the waters under the heavens). This view is confirmed by the chiasmic relationship with the following verses which describe the destruction of the earth by the Flood:

- A Formation of heavens<sup>3</sup> by God's word (v. 5a)
- B Formation of land by water and out of water (v. 5b)
- B' Destruction of land by water (v. 6)
- A' Destruction and judgment of present heavens and land, and ungodly men by God's word (v. 7)

In chapter 3, the authors list numerous extra-biblical witnesses to creation *ex nihilo* including texts from the Apocrypha and Pseudepigrapha, Josephus, Philo, Rashi, Ibn Ezra and many of the Church Fathers.

### Philosophical analysis

In chapter 4, the authors provide a philosophical analysis of creation *ex nihilo*. They launch into a rather esoteric philosophical discussion of the difference between creation (*creatio originans*) and conservation (*creatio continuans*). They go to great effort to present a formal philosophical argument that only those with formal training in logic and philosophy would be able to follow, to demonstrate something that is intuitively obvious: that creation *ex nihilo* involves the bringing into being of something from nothing at a particular point in time.

Copan and Craig favour the A-theory (or *tensed* view)<sup>4</sup> of time over the B-theory (or *tenseless* view).<sup>5</sup> They do so because the B-theory has no real objective sense of ‘temporal becoming’. They argue that if you stand outside of the space-time continuum and look in, the notions of past, present and future are temporally meaningless, and therefore everything objectively exists (tenselessly). Because there was no time ‘before’ creation, this implies—according to Copan and Craig—that the entire series of time events co-exist timelessly with God. In their view, a proponent of the B-theory cannot say God brought the universe into being *ex nihilo* at some moment in the finite past:

‘There is in the actual world no state of affairs of God existing alone and without the space-time universe. God never really brings the universe into being; as a whole it coexists timelessly with him’ (p. 161).

Thus, the A-theory is, in their view, more in accord with creation *ex nihilo*, while the B-theory does not do justice to the biblical data.

This conclusion simply does not follow. Timelessness is not the same as co-existence. In other words, the *absence of time* does not imply that everything will happen at the *same time*.

Such a proposition is clearly nonsense. If time does not exist then there can be no concept of things existing at the *same time*! A B-theorist can simply say that God is *ontologically* prior to creation, i.e. He (tenselessly) caused the universe to come into being. In fact, Craig himself has argued this very point elsewhere and concluded that before God created, He existed timelessly.<sup>6</sup>

In actual fact, it is the A-theory that does not do justice to the biblical data. The A-theorist cannot explain how God could have known that the leaders of Keilah would hand David over to Saul (1 Samuel 23:10–13), and how could the angel of God know that Paul and the crew would safely make it to Rome even though their ship would be lost, and that the sailors must stay with the ship in order for them all to be saved (Acts 27:21–32)? These future events are presented as certainties, not mere possibilities. The A-theorist cannot appeal to God’s omniscience. On the A-theory of time, future events do not yet exist and are therefore unknowable, and even God can only know what is knowable.

In Chapter 5, the authors explore the interesting question of the existence of abstract objects like numbers, properties and propositions. They note that Platonists argue that these things exist objectively and coexist with God. Copan and Craig object to this idea because it stands against their view of creation *ex nihilo*.

But why should we accept their view that creation *ex nihilo* implies the creation of such abstract objects? If these things did not independently exist then God would be without definition. Nothing could be said about Him. There would only be silence.

Nevertheless, the authors attempt (unconvincingly in my view) to show Platonism is false by launching into yet another esoteric philosophical argument. However, they do acknowledge that abstract objects still present a problem because they are obviously indispensable. They ultimately conclude that some form of conceptualism is the answer i.e. that abstract objects do not actually exist but are merely concepts in the mind. They are, however, not prepared to

make a commitment to any specific solution—apart from a rejection of Platonism, that is!

### Kalām Cosmological Argument

Chapter 6 presents the philosophical arguments in favour of the *Kalām* Cosmological Argument. This is one of the classic arguments for the existence of God.

The *Kalām* Cosmological Argument is captured in the following syllogism:

1. Whatever begins to exist has a cause of its existence.
2. The universe began to exist.
3. Therefore, the universe has a cause of its existence.

Although this is a logically valid argument, it is not an easy one to defend. One of the authors, William Lane Craig, has long championed this argument, and much of the content of chapter 6 is a rehash of Craig’s previously published work in this area.<sup>7</sup>

The key premise here is premise (2). Craig argues that because the past is a sequence of moments extending backwards in time, it cannot extend to infinity past because that would imply an actually infinite set of moments which Craig argues cannot exist.

The first argument he employs is described in the following syllogism:

- 2.1 Argument based on the impossibility of an actual infinite.
  - 2.1.1 An actual infinite cannot exist.
  - 2.1.2 An infinite temporal regress of events is an actual infinite.
  - 2.1.3 Therefore, an infinite temporal regress of events cannot exist.

The argument for the impossibility of the actual infinite is based on the view that although potential infinite sets exist, actual infinite sets do not. In other words, although we can imagine an infinite set in our minds (e.g. the set of all natural numbers), we cannot point to an actual instance of an infinite set in the real world. The reason, according to Craig, is because actual infinite sets in the real world would result in absurdities.

### Hilbert's hotel

Craig's favourite method of demonstrating this point is the analogy of Hilbert's hotel formulated by mathematician David Hilbert. Here is Craig's description:

'Let us first imagine a hotel with a finite number of rooms. Suppose, furthermore, that all the rooms are full. When a new guest arrives asking for a room, the proprietor apologizes, "Sorry, all the rooms are full"... Now let us imagine a hotel with an infinite number of rooms and suppose once more that all the rooms are full. There is not a single vacant room throughout the entire infinite hotel. Now suppose a new guest shows up, asking for a room. "But of course!" says the proprietor, and he immediately shifts the person in room 1 into room 2, the person in room 2 into room 3, the person in room 3 into room 4 and so on, out to infinity. As a result of these room changes, room 1 now becomes vacant and the new guest gratefully checks in. But remember, before he arrived, all the rooms were full! Equally curious, according to the mathematicians, there are now no more persons in the hotel than there were before: the number is just infinite. But how can this be? The proprietor just added the new guest's name to the register and gave him his keys—how can there not be one more person in the hotel than before?' (pp. 201–202).

Craig goes on to argue that even more absurdities are possible. For example, an infinite number of people could check in or an infinite number of people could check out, and there would still be the same number of people in the hotel. He concludes:

'... the contradiction lies in the fact that one can subtract equal quantities from equal quantities and arrive at different answers. For example, if we subtract all the even numbers from all the natural numbers, we get an infinity of numbers; and if we subtract all the natural numbers greater than three from all the natural numbers, we

get only four numbers. Yet in both cases we subtracted the *identical number* of numbers from the *identical number* of numbers and yet did not arrive at an identical result' (p. 206).

Craig is trying to demonstrate an absurdity by framing the situation in the precise terms of a mathematical equation; the new total number of guests ( $N_{\text{guest}}$ ) is the initial number of guests ( $I_{\text{guest}}$ ) plus the new arrivals (A):

$$N_{\text{guest}} = I_{\text{guest}} + A$$

The hotel already has an infinite number of guests, and although a new arrival has checked in, there are still an infinite number of guests. As Craig sees it, there are now no more persons in the hotel than there were before the new arrival checked in: there are still an infinite number of guests. Thus, Craig argues that since both  $N_{\text{guest}}$  and  $I_{\text{guest}}$  are infinite, the equation has the following form:

$$X = X + Y$$

This equation is clearly contradictory— $X$  cannot be equal to both  $X$  and  $X + Y$  (where  $Y \neq 0$ ) at the same time—so Craig claims this is a powerful demonstration of the non-existence of an actual infinite.

#### Misunderstanding infinity

However, this argument says more about Craig's (faulty) concept of infinity, than it does about the non-existence of an actual infinite. It appears that Craig considers infinity to be a very large number, like 9,999,999,999,999,999,999. Infinity is *not* a very large number—it is *beyond number*. This is a fundamental misunderstanding of the notion of infinity and it is surprising that Craig's other critics (usually other philosophers) have not pointed this out previously. Thus, any attempt to quantify infinity, or treat it as a known quantity is totally meaningless, and inserting infinity as a term in an equation is wholly inappropriate. Thus, Craig's attempt to construe the above situation in terms of a

mathematical equation (i.e.  $\infty = \infty + 1$ ) is misguided and constitutes a fatal flaw in the argument. The fact that a hotel that already has infinite number of guests will still have an infinite number of guests even after one new person (or an infinite number of new persons!) checks in, simply confirms that infinity is, by definition, beyond quantitative measurement.

The problem, it seems, is Craig's misunderstanding of set theory—especially as it applies to infinite sets. Set theory differentiates between the *number of elements in a set* and the *value of the number of elements in a set*. The former quality is said to be denumerable (countable), if the set can be put in a one-to-one correspondence with some other set. The latter is called 'cardinality' and is the numerical value of the size of the set, and it appears that Craig has confused these two concepts. For finite sets, these two qualities will be identical in value. For infinite sets, however, the number of elements in the set is, by definition, undefined. The cardinality of the set, however, will be  $\aleph_0$  (aleph-null) if the set is countable (such as the set of natural numbers and the set of rational numbers), or  $\aleph_1$  (aleph-one) if the set is an uncountable set (such as the set of real numbers).<sup>8</sup> Note that the cardinality of infinite sets, like infinity itself, is denoted by a symbol rather than an actual value. In other words, it has no actual determinable numerical value.

Thus, regarding Hilbert's Hotel, what remains constant is not the number of guests but the *cardinality* of the set of guests. In fact, an infinite set is, by definition, one for which we can remove some of its elements without reducing its cardinality (size).

Moreover, although the cardinality of the set of guests remains constant, the actual members of the set of guests may change. For example, suppose the hotel guests are all identified by a unique odd identity number starting at one and increasing toward infinity (1, 3, 5 ...  $\infty$ ). After one night, all the guests decide to check out, and are replaced by an infinite number of guests identified by unique even numbers (2, 4, 6 ...  $\infty$ ). Thus, the set of guests is still infinite and its cardinality



Georg Cantor (1845–1918), the father of set theory.

is still  $\aleph_0$ , but the set now contains totally different members.

Note also that the supposedly ‘absurd’ implications of an actual infinite arise only because they appear to violate Euclid’s maxim: that the whole must be greater than its parts. But while Euclid’s maxim certainly applies to finite sets, why should we suppose that it applies to infinite sets? Furthermore, even if it does apply to infinite sets, why should we interpret it in this context to mean that the number of members in the whole is greater than the number of members in a part. We could just as easily interpret the maxim to mean that the set of natural numbers is ‘greater’ than the set of even numbers because it contains all the odd numbers in addition to the even numbers. This is a perfectly valid interpretation of Euclid’s maxim and if we apply it in this way then there is no contradiction.

Ultimately, Craig’s charge of absurdity does not follow. At best, the Hilbert’s Hotel analogy demonstrates that there is no such thing in the real world as a fully booked hotel with an infinite number of rooms. No one would seriously disagree with this conclusion, but it does not rule out the possibility of other actually infinite sets.

At worst, Hilbert’s Hotel demonstrates that intuitions gained from finite sets break down when dealing with infinite sets. Indeed,

Georg Cantor (1845–1918), the father of set theory, wrote:

‘All so-called proofs against the possibility of actually infinite numbers are faulty, as can be demonstrated in every particular case, and as can be concluded on general grounds as well. It is their *πρώτον ψεῦδος* [first mistake] that from the outset they expect or even impose all the properties of finite numbers upon the numbers in question, while on the other hand the infinite numbers, if they are to be considered in any form at all, must (in their contrast to the finite numbers) constitute an entirely new kind of number, whose nature is entirely dependent upon the nature of things and is an object of research, but not of our arbitrariness or prejudices.’<sup>9</sup>

Craig’s other supporting argument for premise (2) of the *Kalām* Cosmological Argument is the impossibility of forming an actual infinite by successive addition. This argument is captured in the following syllogism:

2.2 Argument based on the impossibility of the formation of an actual infinite by successive addition.

- 2.2.1 A collection formed by successive addition cannot be actually infinite.
- 2.2.2 The temporal series of past events is a collection formed by successive addition.
- 2.2.3 Therefore, the temporal series of past events cannot be actually infinite.

However, this argument is also problematic. Premise 2.2.1 concerns the *formation* or *enumeration* of an actual infinite, but formation and enumeration of an actual infinite bear no relevance at all to the existence of an actual infinite. First, regarding formation, an actual infinite collection, by definition, simply exists—it does not need to be ‘formed’. In other words, one does not need to add members successively to the collection since, if the collection is indeed actually infinite, the members would *already* be

in the collection. Second, with respect to enumeration, an actually infinite collection has an infinite number of members, and therefore, as Craig points out, it would be impossible to sit down and count them all. But the fact that you cannot count all the members does not imply that the actual infinite collection does not exist. Indeed, the fact that one cannot count all the members proves that the collection is indeed actually infinite!

In premise 2.2.2, Craig states that the temporal series of past events is formed by successive addition. However, this premise *a priori* rules out any possibility of an eternal universe. If the universe is indeed eternal, then this premise would simply be false. The temporal series of past events would be an actually infinite collection, and, as pointed out above, an actually infinite collection does not need to be formed—it simply exists. In other words, if the universe had no beginning then the actually infinite temporal series of past events simply exists—it does not need to be ‘formed by successive addition’.

Nevertheless, Craig employs the Tristram Shandy paradox in an attempt to demonstrate the impossibility of infinite time past. Tristram Shandy, who writes his autobiography so slowly that it takes him a year to record the events of a single day, would, had he been writing from eternity past, have completed his autobiography by today, since, by the Principle of Correspondence, for every day of living there has been a corresponding year of writing; but, Craig concludes, such a conclusion is absurd, since he could not yet have recorded today’s events.

However, there is no reason to think that Tristram Shandy will ever finish his autobiography, even if he has been writing from eternity past, and Craig’s assertion that he must have done so does not follow from the Principle of Correspondence. This principle is used merely to demonstrate the cardinality of an infinite set—it says nothing at all about the nature of the corresponding members. In other words, the fact that Tristram Shandy’s task is impossible has nothing at all

to do with the actual infinite. It is the nature of the task itself that is impossible. This can be demonstrated by altering the task slightly. Suppose, instead, that it only takes Tristram Shandy two hours at the end of the day to record his day's activities. In this case, regardless of how long Tristram Shandy has been writing, he will always be up to date, even if he has been writing from eternity past.

In any event, Craig sets impossible and irrational tests for the demonstration of the existence of an actual infinite and when those tests inevitably fail, he concludes that the actual infinite cannot exist! This is like asking a metallurgist to determine the value of a gold nugget. He can weigh it, count the number of atoms, do a chemical analysis and tell you its purity, but he cannot tell you its value. But that does not mean the gold nugget has no value!

### Big bang fallacies

In chapter 7, Copan and Craig present the big bang cosmology and the heat death of universe as evidence for creation *ex nihilo*. Again, this material is drawn from Craig's previously published work in this area.

The 'standard' big bang cosmological model is held up as a scientific confirmation of creation *ex nihilo* at a finite point in the past. He notes that Hubble's discovery of the redshift in light led to the conclusion that the universe was expanding:<sup>10</sup>

'... as one reverses the expansion [of the universe] and extrapolates backwards in time, the universe becomes progressively denser until one arrives at a state of infinite density at some point in the finite past. This state represents a singularity at which the space-time curvature, along with temperature, pressure, and density, becomes infinite. It therefore constitutes a boundary to space-time itself' (p. 222).

However, a singularity also implies that all established physical laws have broken down. Thus, it is completely premature to conclude that the singularity constitutes a

boundary to space-time itself. All that can legitimately be said is that the singularity represents the beginning of the universe *that we currently observe*. It may be that the universe pre-existed in a different state before the big bang event, but the presence of the singularity makes any scientific investigation impossible.

Furthermore, what exactly do the authors mean by the 'standard' big bang model? There is in fact no consensus among professional cosmologists in regard to what constitutes such a standard model. All big bang models contain many parameters that can be adjusted, but which are also inter-related and therefore cannot be tuned in isolation.

### Holding fast to the paradigm

Moreover, the big bang paradigm has a growing number of well qualified dissenters.<sup>11</sup> This is largely because big bang cosmology has serious problems explaining numerous actual observations.<sup>12</sup> Given that many of these problems are fatal, why has the big bang scenario not been rejected? How can scientists still cling to a model that has had its basic assumptions empirically falsified? Thomas Kuhn provides the answer:

'No process yet disclosed by the historical study of scientific

development at all resembles the methodological stereotype of falsification by direct comparison with nature.'<sup>13</sup>

Ultimately, scientific theories are considered to be valid, not by rigorous testing and verification, but by their ability to explain the available data.<sup>14</sup> But if contrary data is discovered the theory is either modified by adjusting one or more of its parameters, or the data is ignored in the hope that a solution will be found in the future. In fact, as Kuhn demonstrates, a theory is never rejected unless there is a ready replacement.<sup>13</sup> At this point in time, there is no ready replacement for the big bang—at least not one that is ideologically acceptable to the scientific establishment.

Like many theistic defenders of the big bang, Copan and Craig include the mandatory quotation from Robert Jastrow in which he acknowledges that scientists have reached the same conclusion as theologians albeit a few centuries later: that the universe had a beginning.<sup>15</sup> But they forget to mention that, despite this acknowledgment, Jastrow remains an agnostic. To Jastrow, the search for the meaning of the big bang lies outside science, and is therefore scientifically unknowable. Yet, Jastrow remains a biological evolutionist. He is simply fascinated



Artist impression of the supposed big bang.

by the religious implications of big bang cosmology and the effect they have had on his colleagues.<sup>16</sup>

### Heat death of the universe

The second piece of scientific evidence cited as confirmation of a beginning to the universe, is the second law of thermodynamics. Craig notes that the second law seems to imply that, given enough time, the universe will reach a state of thermodynamic equilibrium, known as the 'heat death' of the universe. Therefore, the authors argue that if, given sufficient time, the universe will reach heat death, then why is it not now in a state of heat death if it has existed for infinite time? In other words, if the universe did not begin to exist, then it should now be in a state of equilibrium.

Although this argument looks promising, it too is problematic. Firstly, as Adams and Laughlin point out, 'a continually expanding universe never reaches true thermodynamic equilibrium and hence never reaches a constant temperature. Classical heat death is thus manifestly avoided.'<sup>17</sup> Although Adams and Laughlin do acknowledge that a 'cosmological' heat death may still occur, they add that as the relevant temperatures become increasingly smaller due to the expansion of the universe, it is possible that classical theory will break down at some point.<sup>17</sup> Thus, it would be inappropriate to appeal to classical theory in order to predict a heat death for the universe.

While this is all highly speculative, it is no more speculative than big bang cosmology, and it demonstrates that an appeal to the second law of thermodynamics and the predicted heat death of the universe also does not necessarily imply the universe had a beginning. Like the argument from big bang cosmology, this argument can, at best, only suggest that the universe *as we know and observe it* began to exist. It does not necessarily demonstrate an absolute beginning.

In the final chapter the authors summarise why a supernatural explanation is superior to all naturalistic explanations.

### Conclusion: limited apologetic use

In conclusion, I think this book will be of very limited use to Christian apologists. Its one strength is the first few chapters which present the biblical and extra-biblical teaching on the doctrine of creation *ex nihilo*. However, the philosophical arguments, despite their appearance of intellectual sophistication, involve a number of serious conceptual confusions, and appear to 'beg the question' in many instances. Copan and Craig place far too much weight on current scientific wisdom and consensus when they uncritically accept the big bang cosmology as truth. They appear to simply accept whatever the scientific high priests have told them. They are, in essence, making the same mistake as the scientists of Galileo's time who had assumed the truth of Aristotelianism and used it as their interpretive grid. Unfortunately, Copan, Craig and other Christians who regularly employ big bang cosmology to prove the existence of God are going to look very silly when the big bang is eventually abandoned. On this point, Copan and Craig would do well to heed the words of Thomas Aquinas:

'Hence that the world began to exist is an object of faith, but not of demonstration or science. And it is useful to consider this, lest anyone, presuming to demonstrate what is of faith, should bring forward reasons that are not cogent, so as to give occasion to unbelievers to laugh, thinking that on such grounds we believe things that are of faith.'<sup>18</sup>

Moreover, the reality is that such arguments have convinced almost no one. Jastrow remains an agnostic and an evolutionist; Stephen Hawking, Stephen Weinberg and Paul Davies are still deists. In fact, philosopher Antony Flew, in a recent interview stated:

'I think that the most impressive arguments for God's existence are those that are supported by recent scientific discoveries. I've never been much impressed by the *kalam* cosmological argument, and I don't think it has gotten any

stronger recently. However, I think the argument to Intelligent Design is enormously stronger than it was when I first met it.'<sup>19</sup>

Indeed, one can quite rightly respond as George Ellis (a professing theist) did to Craig's philosophical and scientific arguments: '... in the end, you can, if you want to, look at it sceptically and say, "I reject it"'.<sup>20</sup> In the end, Copan's and Craig's presentation is more or less a case of *argumentum ad nihilum*.

### References

1. For a refutation of this absurd concept, see Kulikovskiy, A.S., Scripture and general revelation, *Journal of Creation* 19(2):23–28, 2005.
2. 2 Peter 3:5: 'But they deliberately forget that long ago by God's word the heavens existed and the earth was formed out of water and by water' (NIV).
3. Genesis 1:8: 'sky'.
4. In the A-theory (or *tensed* view), only the present state objectively exists. Past states no longer exist, and any future states are yet to exist. Time consists of a series of present moments.
5. In the B-theory (or *tenseless* view), time is a continuous temporal block where 'past', 'present' and 'future' are merely linguistic terms describing the time relative relations between different states and events in the space-time continuum.
6. Craig, W.L., God and the beginning of time, *International Philosophical Quarterly* 41:17–31, 2001.
7. Craig, W.L., *The Kalam Cosmological Argument*, Macmillan, London, 1979; Craig, W.L., Wallace Matson and the Crude Cosmological Argument, *Australasian Journal of Philosophy* 57:163–170, 1979; Craig, W.L., Dille's Misunderstandings of the Cosmological Argument, *New Scholasticism* 53:388–392, 1979; Craig, W.L., *The Cosmological Argument from Plato to Leibniz*, Macmillan, London, 1980; Craig, W.L., Professor Mackie and the *Kalam* Cosmological Argument, *Religious Studies* 20:367–375, 1985; Craig, W.L., The *Kalam* Cosmological Argument and the Hypothesis of a Quiescent Universe, *Faith and Philosophy* 8:104–108, 1991; Craig, W.L., The existence of God and the beginning of the universe, *Truth: A Journal of Modern Thought* 3:85–96, 1991; Craig, W.L., Graham Oppy on the *Kalam* Cosmological Argument, *Sophia* 32:1–11, 1993; Craig, W.L., In defense of the *Kalam* Cosmological Argument, *Faith and Philosophy* 14:236–247, 1997; Craig, W.L., A Swift and Simple Refutation of the *Kalam* Cosmological Argument? *Religious Studies* 35:57–72, 1999.

8. Georg Cantor showed that the rational numbers could be mapped one-to-one with natural numbers, while real numbers could not be, so had a greater cardinality.
9. Cited in Dauben, J.W., *Georg Cantor: His Mathematics and Philosophy of the Infinite*, Harvard University Press, Cambridge, MA, p. 125, 1979.
10. Redshifts are the degree to which the light from distant stars is shifted to the red (low frequency) end of the spectrum, which is supposed to measure the speed at which the star is moving away, and hence how far away it is.
11. See Lerner, E., Bucking the big bang, *New Scientist* **182**(2448):20, 22 May 2004; <www.cosmologystatement.org>; Wieland, C., Secular scientists blast the big bang: what now for naïve apologetics? *Creation* **27**(2):23–25, 2005.
12. See Ellis, G.F.R., Innovation, resistance and change: the transition to the expanding universe: in; *Modern Cosmology in Retrospect*, Cambridge University Press, UK, pp. 97–113, 1990; Trefil, J., *The Dark Side of the Universe*, Macmillan, NY, pp. 3, 55, 1988; Matthews, R., Do galaxies fly through the universe in formation? *Science* **271**:759, February 9, 1996.
13. Kuhn, T.S., *The Structure of Scientific Revolutions*, University of Chicago Press, Chicago, IL, p. 77, 1996.
14. Kuhn, ref. 13, p. 145.
15. ‘For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream. He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries.’ Jastrow, R., *God and the Astronomers*, W.W. Norton, NY, p. 116, 1978.
16. See Jastrow, R., Message from Professor Robert Jastrow, *Truth Journal* <www.leaderu.com/truth/1truth18b.html>, last updated 14 July 2002.
17. Adams, F.C. and Laughlin, G., A dying universe: the long-term fate and evolution of astrophysical objects, *Reviews of Modern Physics* **69**(2):369, April 1997.
18. Thomas Aquinas, *Summa Theologica* I.46.2. <www.ccel.org/a/aquinas/summa/FP/FP046.html>, 20 September 2006.
19. Flew, A. and Habermas, G., Atheist becomes theist: exclusive interview with former atheist Antony Flew, *Philosophia Christi* **6**(2), 2004.
20. Ellis, G.F.R., A response to the W. Craig lecture, *Astrophysics and Space Science* **269–270**:743, 1999.

## From Plato to pragmatism

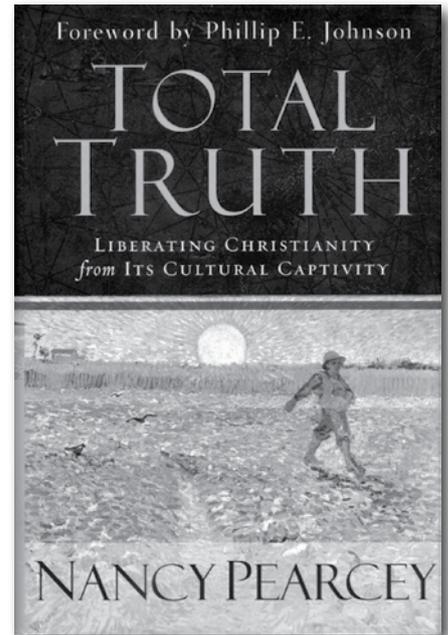
A review of  
**Total Truth: Liberating  
Christianity from its  
Cultural Captivity**  
by Nancy Pearcey  
Crossway Books,  
Wheaton, Illinois, 2005

Marc Kay

The book is long (over 500 pages) and is divided into four sections which segue well into each other. The first deals with worldviews and epistemological concerns, then Darwinism, followed by the history of American evangelicalism and its present problems (provocatively titled ‘How We Lost Our Minds’), and finally, her solution. I’ll only be discussing the first two. In addition, the book contains four appendices, a study guide and generous endnotes.

### A schizophrenic worldview

Nancy Pearcey has set herself a monumental task, nothing less than ‘to liberate Christianity from its cultural captivity, unleashing its power to transform the world’ (p. 18). Both the cause of the problem and its solution lie in an attitude to the world and to knowledge. She points out that non-Christians have promoted an epistemology which has fractured knowledge into a two-tiered system: a ‘lower’, ‘more accessible’ stratum, given over entirely to the public sphere, containing science, facts, rationality, materialism, the objective and empirical; the other, a ‘higher’, in some cases, transcendent, private realm, characterised by such structures as religion, morality, the non-rational, the subjective and relative (figure 1). Such an attitude has a history which stretches back deep into the past and yet continues to be ‘the most pervasive thought pattern of our times’ (p. 121). If Christians are to successfully engage with the world they must, she argues, ‘find ways to overcome the dichotomy between sacred and secular, public and private, fact and value—demonstrating



to the world that a Christian worldview alone offers a whole and integral truth.’ (p. 121)

All well and good, but, unfortunately, Christians, beginning very early on in the young Church, picked up and ran with this flawed epistemological outlook, and enthusiastically continue to do so today. Even more sadly, Pearcey doesn’t recognise that she, although endlessly dissuading us from the danger, has herself fallen under the spell of this schizophrenic epistemology. But I’ll save this major flaw in the book until later.

Pearcey is an unapologetic admirer of Francis Schaeffer, having stayed at L’Abri in Switzerland while he was still alive. And this brings me to my first criticism of the book. Her whole approach to the epistemological divide was more than adequately explained by Schaeffer, and having read his major works several times, I can see little value in her returning to this old ground to the degree she does. Schaeffer covered all the same watershed moments in Western civilization more succinctly, with greater eloquence and with significantly fewer digressions. Plato, Aristotle, Augustine, the Medievalists, the Enlightenment, Kant and Hume,