

## **“The Tristram Shandy Paradox”**

In “Traversal of the Infinite, the ‘Big Bang’ and the *Kalam* Cosmological Argument”, David Oderberg argues that William Craig has the better of his opponents in two important parts of the contemporary discussion of the *kalam* cosmological argument. First, Oderberg defends the claim that “Craig is ... quite correct to argue that [The Tristram Shandy Paradox] supports his contention that the infinite cannot be traversed” (20). Second, Oderberg argues that Craig is correct to defend the two key premises in the *kalam* cosmological argument—viz. the claim that the universe began to exist, and the claim that whatever begins to exist has a cause of its existence; that most of what Craig says in defense of these premises is correct; and that Craig’s opponents have no decent objections to lodge against these premises. In this paper, I propose to examine Oderberg’s discussion of “The Tristram Shandy Paradox”; investigation of what I take to be the many flaws in the second half of his paper will need to be postponed to some other occasion. I shall argue that Oderberg fails to provide any good reasons for thinking that “The Tristram Shandy Paradox” *supports* the contention that no actually infinite collection can be formed by successive addition.

### 1

The *kalam* cosmological argument to which Oderberg (and Craig) suppose that “The Tristram Shandy Paradox” is relevant runs as follows:

1. A collection formed by successive addition cannot be actually infinite.  
(Premise)
2. The temporal series of past events is a collection formed by successive addition.  
(Premise)
3. (Hence) The temporal series of past events cannot be actually infinite.  
(From 1, 2)
4. (Hence) The temporal series of past events isn’t actually infinite. (From 3)
5. (Hence) The universe began to exist. (From 4)
6. Whatever begins to exist has a cause of its existence. (Premise)
7. (Hence) The universe has a cause of its existence. (From 5, 6)
8. (Hence) God exists. (From 7)

There are many different criticisms that can be made of this argument. However, as foreshadowed above, in the present discussion, I shall just concentrate on Premise 1; and, in particular, I shall concentrate on the claim—which both Oderberg and Craig defend—that “The Tristram Shandy Paradox” somehow supports the contention that a collection formed by successive addition cannot be actually infinite.

Oderberg explains that Premise 1 amounts to the claim that an actual infinity “has to be given all at once or not at all, and by ‘all at once’ is meant ‘simultaneously’”. To take the case of an infinite library ... if such a thing were to exist, all of its books would have to come into existence at precisely the same time.” (6) This explanation seems flawed: surely the most that could sensibly be required in the case of an infinite library is that

*some* infinite sub-part of the library is “given all at once”. Even with this adjustment in hand, one might well feel that one’s grasp of the meaning of Premise 1 is shaky; however, I shall simply assume that it is well enough understood for the purposes of the present paper.

## 2

There are a number of different “paradoxes” which have been referred to as “The Tristram Shandy Paradox”. I shall list—and label—the different versions that are mentioned in Oderberg’s discussion.

First, there is TSP<sub>1</sub>, the “puzzle” which is propounded and answered by Bertrand Russell. Suppose that it takes Tristram Shandy one year to record one day of his life. Does it follow that there are days in his life that are never recorded? Not at all, says Russell. If Tristram Shandy lives forever, and if he does not weary of his task, then no part of his diary remains forever unwritten (or, at any rate, it *need not* be that any part of his diary remains forever unwritten).

Second, there is TSP<sub>2</sub>, a “puzzle” that is discussed by William Craig in his initial writings on “The Tristram Shandy Paradox”. Suppose that it takes Tristram Shandy one year to record one day of his life. Does it follow that Tristram Shandy is unable to *complete* the task of recording his life?

Third, there is TSP<sub>3</sub>, a further “puzzle” that is discussed by William Craig in his initial writings on “The Tristram Shandy Paradox”. Suppose that Tristram Shandy has been writing “from eternity past”, and that it takes him one year to record one day of his life. Does it follow that Tristram Shandy is able to complete the task of recording his life?

Fourth, there is TSP<sub>4</sub>, a “puzzle” that was first considered by Ellery Eells. Suppose that Tristram Shandy has been writing “from eternity past”, and that it takes him one year to record one day of his life. Suppose, further, that Tristram Shandy is able to record his future. Does it follow that Tristram Shandy is able to complete the task of recording his life?

Fifth, there is TSP<sub>5</sub>, a “puzzle” that was first considered by Robin Small. Suppose that Tristram Shandy has been writing “from eternity past”. Suppose further that it takes him one year to plan one future day of his life. Does it follow that Tristram Shandy cannot now lay down his pen, having completed his planning for today, and with no days in his life prior to now having been left unplanned?

## 3

I find Oderberg’s discussion of TSP<sub>1</sub> odd. What Oderberg criticizes is Russell’s apparently careless description of the situation developed in TSP<sub>1</sub> as one in which Tristram Shandy “finishes”—or “completes”—his recording of his life. As Oderberg points out, in the situation described in TSP<sub>1</sub>, it is not true that Tristram Shandy

“finishes” or “completes” his recording of his life, *if* by this one means that there is a point at which Tristram Shandy lays down his pen, with no prior part of his life unreported. The whole point of the scenario which is described is that Tristram Shandy goes on writing forever: this is what explains how it is possible that there is no day in Tristram Shandy’s life which remains forever unrecorded.

However, Oderberg—following Craig—claims that:

[T]his part of the KCA assumes the possibility of an actual infinity, and questions whether it could be formed by successive addition. So, let us assume that the future is an actual infinity ... (10)

But, if the future is an actual infinity, and if—as Oderberg and Craig assume—any temporal series of events is formed by successive addition, then it follows immediately that there is an actual infinity that is formed by successive addition! And if—as Oderberg here allows—it is conceded that it is *possible* that the future is an actual infinity, and if—as Oderberg and Craig assume—it is *necessarily* true that any temporal series of events is formed by successive addition—then it follows that it is *possible* that there is an actual infinity that is formed by successive addition. So, while Oderberg and Craig *may* be right to criticize Russell for his apparently careless claim about Tristram Shandy’s “finishing” or “completing” his writing, it seems that—by their own lights—the envisaged scenario does indeed involve a logically consistent description of an actual infinity formed by successive addition, *provided only* that it is logically possible that there is an actual infinity, and that it is logically possible that the future is an infinity of this kind. In the light of this observation, there is clearly room for scepticism about the claim that Craig’s criticisms of the thesis that it is possible that there is an actual infinity formed by successive addition are independent of his criticisms of the thesis that it is possible that there is an actual infinity.

#### 4

The discussion that Oderberg and Craig give of TSP<sub>2</sub> is also odd. Suppose that we assume that Tristram Shandy can only begin to record a day after that day has occurred. Then—without making any further assumptions about whether he has been writing for a finite or an infinite amount of time—we can immediately infer that it is not possible for Tristram Shandy to lay down his pen at a time when no part of his life prior to that day remains unrecorded. So this particular version of the story can have *no* bearing at all on the question whether it is possible for an actual infinity to be formed by successive addition.

Consider the following analogy. It is perfectly possible for me to tell an inconsistent story about a ride in a taxi. But my telling such stories provides no evidence at all that it is logically impossible to ride in a taxi. Since TSP<sub>2</sub> would be inconsistent whether or not it involved an actual infinity formed by successive addition, the inconsistency of the version of TSP<sub>2</sub> that involves an actual infinity formed by successive addition provides no support at all for the claim that it is logically impossible for there to be an actual

infinity formed by successive addition. Of course, nothing that I have said in this section is inconsistent with the claim that it *is* logically impossible for there to be an actual infinity formed by successive addition; the point is just that it is hopeless to think that TSP<sub>2</sub> might have some role in showing that it *is* logically impossible for there to be an actual infinity formed by successive addition.

## 5

The oddity that is to be found in the discussion of TSP<sub>2</sub> carries over to the discussion of TSP<sub>3</sub>. If we assume that Tristram Shandy can only begin to record a day after that day has occurred, then the addition of the assumption that Tristram Shandy has been writing since eternity past cannot restore consistency to the story. But then—for the reasons already noted—the inconsistency of this version of the story can do nothing to *support* the claim that it is logically impossible for there to be an actual infinity formed by successive addition.

Craig argues that, because the days of Shandy's life and the years in which he records them could be put into a one-one correspondence in the case in which he has been writing from eternity past, the story suffices to demonstrate the bankruptcy of the notion that "Cantor's principle"—i.e. the principle that sets whose members can be one-one correlated are of equal cardinality—applies to "concrete situations". However, against this, Oderberg argues that, in fact, the years and days "cannot be put into a one-to-one correspondence".

Oderberg's claim seems manifestly false. Here is a correlation: the last day is correlated with the last year; the second last day is correlated with the second last year; the third last day is correlated with the third last year; and so on. This establishes a one-to-one correspondence between years and days. Of course, it is not a one-to-one correspondence between days and years-in-which-Tristram-Shandy-could-have-written-about-the-corresponding-days. But, as we saw above, the assumption that Shandy can only report a day after it takes place all by itself entails that there can be no correspondence of *that* kind.

Craig's argument seems very weak. If there can be actual infinities, then Cantor's principle applies to "concrete situations"; if there cannot be actual infinities, then it does not. But, as we have already noted, the existence of a one-to-one correspondence between the days of Shandy's life and the years in which he records them does *not* guarantee that it is possible for Shandy to finish his writing. So we have been given no reason here to think that the application of Cantor's principle in "concrete situations" is less acceptable than its application in pure mathematics.

## 6

Oderberg makes two points in his discussion of TSP<sub>4</sub>. First, he claims that it is logically impossible for Shandy to record his future. (Oderberg adds: "on the assumption that there is nothing to record until his future is lived" (13). But it is clear that Oderberg thinks that

this is an assumption that ought to be endorsed.) Second, he claims that even if it were logically possible for Shandy to record his future, there would still be a logical inconsistency in this version of the story.

Perhaps it *is* logically impossible for Shandy to record his own future. Perhaps it is also logically impossible for anyone else to record Shandy's future. However, rather than explore these suggestions here, I shall simply pass on to the second of the claims that Oderberg makes. (One point that seems worth noting is that, if it is logically impossible for Shandy to record his own future, then it is logically impossible for God to have knowledge of Shandy's future. For, if God could have knowledge of Shandy's future then surely God could pass this information on to Shandy to record. So taking the view that it is logically impossible for Shandy to record his own future has consequences for what one can say about divine omniscience and divine foreknowledge of future contingents.)

Suppose we grant that it is logically possible for Shandy to record his future. What other inconsistency might be detected in TSP<sub>4</sub>? Oderberg claims:

Since ... there must ... be a point ... when Shandy is no longer writing about his future but about his past, it follows that he cannot finish his autobiography because he needs an infinite time to record his infinite past. And this logically contradicts [the claim] that he has finished. But if we suppose him to have finished—by completing the record of his past, having already completed recording his eternal future—then he cannot have had an infinite past, which logically contradicts [the claim] that he has been writing from eternity. (14)

But it simply isn't true that TSP<sub>4</sub> *requires* that there is a point at which Shandy is writing about his past. Suppose that Shandy has lived from eternity past, and that he dies at the precise moment when he lays down his pen. During his last year, he writes about his final day (and, on the final day, completes the description of his death at precisely the time at which he drops dead). In his second last year, he writes about his second last day. In his third last year, he writes about this third last day. And so on, throughout eternity past. There is no point at which Shandy stops writing about the future; rather, what happens is that his writing ceases as soon as it "catches up" with the present. So there is no inconsistency of the kind that Oderberg here describes in TSP<sub>4</sub>. Of course, that's not to say that the scenario is logically possible, even given that it is logically possible for Shandy to record his future; the point is just that Oderberg has produced no argument for supposing that the scenario is logically impossible.

In his discussion of Small (1986), Oderberg makes quite a bit of the claim that TSP<sub>5</sub> is "isomorphic" to an extended variant of TSP<sub>1</sub> in which it is explicitly assumed that Shandy spends his first year of writing recording the first day of his life; the second year of writing recording the second day of his life; the third year of writing recording the third day of his life; and so on. (To make the story simpler, I here assume that the day on which Shandy begins to write is the first day of his life; of course, nothing of any importance turns on this assumption.) But, in fact, the "mirror image" of this extended variant of TSP<sub>1</sub> is precisely the extended variant of TSP<sub>5</sub> introduced above, in which

Shandy spends his last year planning his last day; his second last year planning his second last day; and so on. (The “mirror image” of the story in which he lives for a while before he begins to write will be one in which his planning does not end on his final day, but rather on an earlier day.) This should not come as a surprise: for the positive integers provide a natural model for an infinite future series of years, and the negative integers provide a natural model for an infinite past series of years.

## 7

According to Oderberg, TSP<sub>5</sub> is the version that is most important for discussions of the claim that a collection formed by successive addition cannot be actually infinite. Moreover, Oderberg claims that this version of the story is inconsistent because it requires violation of the principle that every event should have an adequate explanation. In particular, Oderberg follows Craig in asking why it is that, if Shandy has been writing since eternity, he did not finish his planning yesterday, or the day before (since, by those times, an infinite duration would also have elapsed). “[A]t any time, Shandy should have finished, which means that at no time could he have finished, contrary to the assumption .. that he has finished.” (15)

Suppose we stick with the version of the story in which Shandy drops dead at the precise moment at which is planning “catches up to the present”. So, Shandy plans his last day during his last year; his second last day during his second last year; his third last day during his third last year; and so on. Given the state of his planning at *any* time, and given that he sticks exactly to his schedule, we can calculate exactly when his planning will “catch up to the present”. So, if we are allowed to appeal to the state of his planning at earlier times, then we can give an explanation of why it is that he didn’t “finish” yesterday, or the day before, or at any earlier time: for, at *every* earlier time, his planning had not yet “caught up to the present”.

Suppose that we add to the story that Shandy drops dead at midnight on December 31, 2001. Why does he “finish” *then*? Clearly, one kind of answer would take the form suggested in the previous paragraph: given his behaviour, it was *always* true that he was going to “finish” then (and it was *always* true that he wouldn’t finish before then). Since Oderberg doesn’t consider this kind of answer to his challenge, it is hard to be certain what his reply would be. However, I suspect that he would say that we have not been given an *adequate* explanation for the fact that it was always true that Shandy was going to “finish” at midnight on December 31, 2001: why *that* time rather than some other time?

Even if Oderberg were right about this lack of adequate explanation—and since he offers no account of “adequate explanation”, we have no way of disputing that he would be right—it still would not follow that there is any incoherence in TSP<sub>5</sub>. Rather, all that we would be entitled to infer is that the story is *incomplete*. Granted, perhaps, there is something in the story that has not been given an adequate explanation in the story. But, in order to conclude that the story violates Oderberg’s favourite principle of sufficient reason, we need the stronger claim that there *could not be* an adequate explanation in an

expanded version of the story. (Recall the earlier example of the inconsistent story about a ride in a taxicab. That I can tell you a story about a ride in a taxicab in which there are certain events which are given no adequate explanation in the story provides not the slightest reason to think that the story violates Oderberg's favourite principle of sufficient reason; and still less does it provide reason to think that it is logically impossible to ride in a taxicab.) As things stand, then—even granting the further assumptions about adequate explanation which Oderberg requires—TSP<sub>5</sub> does not provide any support for the claim that a collection formed by successive addition cannot be actually infinite.

Can we expand the story so that it explicitly contains an *adequate* explanation for the fact that it was always true that Shandy was going to “finish” at midnight on December 31, 2001? Here's one line of thought that suggests that perhaps Oderberg ought to be prepared to say that the answer to this question is “Yes!” Suppose that, at all times, God has freely willed that Shandy should “finish” his planning at midnight on December 31, 2001. Given that God is omnipotent and omniscient, and that this is what God has always *freely* willed, surely we do now have an adequate explanation of why it is that Shandy finishes at midnight on December 31, 2001, and not at some other time. Of course, this suggestion relies on the assumption that free will can act as a regress stopper to demands for adequate explanation; but I do not think that Oderberg will be inclined to reject this assumption.

Oderberg does have a brief discussion of the possibility that God could form an actually infinite collection by successive addition. He says: “Craig's critics are unlikely to find much comfort in the thought, if it were true, that the only way the infinite could be traversed were if God did it”. (23) However, if it were true that a collection formed by successive addition can be actually infinite iff God exists, then it would follow immediately that the *kalam* cosmological argument which we are considering cannot be sound (since it has as a premise the claim that no collection formed by successive addition can be actually infinite, and yet has as its conclusion the claim that God exists). It is unclear why “Craig's critics” should not find this result congenial.

It is important to be clear about what it is that I think that the argument in the present section establishes. If I am right, then what I have shown is: (1) that Oderberg's appeal to his favourite principle of sufficient reason is not sufficient to establish that the situation described in TSP<sub>5</sub> is logically impossible; and (2) that Oderberg's discussion of TSP<sub>5</sub> does not issue in any reason at all for supposing that a collection formed by successive addition cannot be actually infinite. I do not claim that anything that I have said establishes that a collection formed by successive addition can be actually infinite; nor do I claim that anything that I have said establishes that the situation described in TSP<sub>5</sub> is logically possible. However, I certainly do claim that, for anything that Oderberg or Craig has argued, it remains a live question whether the situation described in TSP<sub>5</sub> is logically possible.

As it happens, I believe that the scenario described in TSP<sub>5</sub> *is* logically possible. However, I do not think that I have an argument that ought to persuade Oderberg and Craig that this is so. (Perhaps there is a presumption in favour of logical possibility, at

least in the case of propositions whose natural expression involves no modal element, i.e. no actuality operators, no necessity operators, no covert references to necessity, and the like. If so, then failure to find reasons for supposing that a scenario is logically impossible is at least weak evidence in favour of logical possibility. However, it is not clear that very much weight should be given to this kind of argument.) Nonetheless—for the kinds of reasons detailed in Oppy (2002)—I take it that the argument of the present paper to this point is enough to establish that, *as things stand*, the *kalam* cosmological argument outlined in Section 1 is a failure.

## 8

There are other features of Oderberg’s discussion of “The Tristram Shandy Paradox” which are both odd and deserving of comment. In the three penultimate sections of this paper, I propose to discuss three of these features.

In his discussion of TSP<sub>5</sub>, Oderberg claims to have “demonstrated” that there is a logical inconsistency between (1) the claim that Shandy has been planning since eternity past, and (2) the claim that Shandy’s planning has just been completed. Moreover, Oderberg goes on to claim that both of these claims must be made in TSP<sub>5</sub> if it is to have any relevance to the question of whether a collection formed by successive addition can be actually infinite, since “the assumptions are supposed to generate a model which proves that it can”. (15)

How does Oderberg argue for a logical inconsistency between (1) and (2)?

[T]he problem is that without a fixed starting point we cannot even say in principle which year corresponds to which day. (13)

We have already seen that this argument is a failure: matching the last day to the last year, the second last day to the second last year, the third last day to the third last year, and so on, gives a complete correspondence between days and years. If there is a logical inconsistency between (1) and (2), that inconsistency cannot be established by the argument that Oderberg gives.

The second plank in this part of Oderberg’s discussion fares even worse than the first. As we noted in Section 3, even TSP<sub>1</sub>—which does not include claim (2)—is relevant to the question of whether a collection formed by successive addition can be actually infinite. Moreover—and far more importantly—it isn’t true that the reason why TSP<sub>5</sub> is supposed to be relevant to the *kalam* cosmological argument is that it is an attempt to generate a model that *proves* that a collection formed by successive addition can be actually infinite. The argument which Oderberg—and Craig—actually defend is something like this:

1. If a collection formed by successive addition can be actually infinite, then the scenario described in TSP<sub>5</sub> is logically possible.
2. The scenario described in TSP<sub>5</sub> is not logically possible.



3. (Hence) A collection formed by successive addition cannot be actually infinite.

Plainly one need not suppose that TSP<sub>5</sub> is a model that *proves* that a collection formed by successive addition can be actually infinite in order to suppose that this argument fails.

It is perhaps also worth noting that there may be some inconsistency in the remarks that Oderberg makes about (1) and (2). We have already discussed the part of the paper where Oderberg argues that (1) and (2) are logically inconsistent. But later Oderberg goes on to say that:

Since (1), in conjunction with (2), violates the Principle of Sufficient Reason, we must take the paradox as not being realisable. ... There is no internal inconsistency inasmuch as assumptions (1) and (2) of the model are compatible. Together, however, they violate the Principle of Sufficient Reason taken in its least controversial form. Craig is therefore quite right to argue that the paradox supports his contention that the infinite cannot be traversed. (19, 20)

The apparent inconsistency between the earlier and the later remarks would not be removed even if Oderberg were to think that his Principle of Sufficient Reason is logically necessary. I have been unable to find any other even *prima facie* attractive avenue for restoring consistency to Oderberg's discussion.

## 9

There are places where it seems to me that Oderberg insists on uncharitable interpretations of the writings of those whom he opposes. We have already seen this in the case of his discussion of Russell's original presentation of TSP<sub>1</sub>. I think that it is clear from the context that *either* Russell was merely careless in referring to TSP<sub>1</sub> as a situation in which Shandy "finishes" his autobiography, or *else* Russell was unduly optimistic in expecting that readers would happily extend the interpretation of "finishing" an autobiography to include all situations in which no part of the autobiography remains forever unwritten. By contrast, Oderberg supposes that Russell is presenting TSP<sub>2</sub>, and that his discussion of the case is seriously confused.

In a similar vein, Oderberg's discussion of Smith (1987) seems to me to make hash of Smith's views by supposing that claims which Smith clearly intends to apply to TSP<sub>1</sub>—and to apply to what he correctly takes to be discussion of TSP<sub>1</sub> in Craig (1979)—are instead intended to apply to TSP<sub>5</sub>. Since TSP<sub>1</sub> requires the assumption that there is no time at which Shandy finishes, while TSP<sub>5</sub> requires the assumption that there is a time at which Shandy finishes, it is clear that a little misinterpretation here has the potential to go a long way. (This misinterpretation is not justified by the observation that only TSP<sub>5</sub> is really relevant to Premise 1 in the *kalam* cosmological argument, since discussion of "The Tristram Shandy Paradox" can have—and indeed has had—a life of its own. Smith's primary concern—in the paper at issue—is with questions about infinity and the past; whether the answers to these questions have implications for the *kalam* cosmological arguments is not a concern which surfaces anywhere in Smith (1987)).

There is also the matter of Oderberg's discussion of part of Oppy (1991). He writes:

Oppy goes so far as to say that by the claim that it is impossible to traverse an infinite with no first member, Craig merely means—tautologously—that an infinite with no first member is objectionable because it has no first member. This latter charge is mystifying. It is one thing to argue, as Craig does, that an infinite series cannot be traversed because it has no first member, and another entirely to mean by “It cannot be traversed” that it has no first member. Pigs cannot write poetry because they do not have language; but “Pigs cannot write poetry” does not mean “Pigs do not have language”; that they cannot write poetry is a consequence of their not having a language. Similarly, the untraversability of an infinite series with no first member is a consequence of its having no first member, hence it does not follow from the assertion that both obtain that they say the same thing. (24)

Now, in fact, what I wrote was this:

What [Craig] says is that it is a legitimate objection to infinities which have no first member that they cannot be traversed. But what does this mean? Well, as far as I can see, it means that it is a legitimate objection to infinities that have no first member that they have no first member! (194)

And—surprise, surprise!—the parenthetical “tautologously” makes no appearance in what I actually wrote. For, while it is true that what I wrote *could* be read in the way in which Oderberg reads it, that is not the way in which I intended it to be read. Consider the claim that clouding over means rain: following Oderberg, we could insist on taking this claim to express the view that “clouding over” and “rain” have the same meaning. But it is far more likely that we shall understand the claim to be expressing the view that clouding over is a sign of rain, or that clouding over *conveys the information* that it will rain. In a similar fashion, what I wrote was intended to express the view that, in defending his claim that it is impossible to traverse an infinite with no first member, Craig succeeds in doing no more than *conveying the information* that he finds infinities with no first member objectionable because they have no first member, whether or not he would himself be happy with this description of the result of his actions. (The “because” here is the “because” of mere causation, not the “because” of reasons.)

Perhaps the claim that I intended to express is wrong. Perhaps Oderberg is right when he goes on to say that Craig's reply to me is “unanswerable” (24n40). However, it seems worth pointing out that, whatever good grounds Craig may have been adverting to for denying that there can be an actual infinity formed by successive addition, they receive no mention or discussion in Oderberg's paper. For, on the one hand, the only cogent consideration to which Oderberg appeals is the violation of the principle of sufficient reason in the case of TSP<sub>5</sub>. Plainly enough, this consideration has no relevance to TSP<sub>1</sub>. And yet, on the other hand, Craig's “unanswerable” reply to me is, essentially, the point that the “traversals” in TSP<sub>5</sub> and TSP<sub>1</sub> are equally unacceptable to Craig, even though TSP<sub>1</sub> has a first member. It *does* seem to me that the appeal to violations of the principle of sufficient reason in this context is rather intimately connected to the absence of first

members in the series in question! Nonetheless, rather than press this point, let me end the discussion with a challenge: to my knowledge, on-one has ever clearly set out an argument for Premise 1, with clearly identified premises—and clear explanations of the key terms involved—that has even the remotest claim to cogency. If either Craig or Oderberg were to put up here, then almost all other aspects of the discussion would become sideshows.

## 10

Oderberg begins the final phase of his investigation of “The Tristram Shandy Paradox” with some discussion of Wittgenstein’s observation that

[I]f we can across a man saying [“... , 5, 4, 3, 2, 1, 0, finished”], and were told in response to our question of what he was doing that he had just finished [reciting the series of positive integers backwards] we would find the scenario *inherently preposterous* (20, my emphasis)

Now, there is an obvious sense in which this is true. For suppose, instead, that you came across an elderly person who said “... , 5, 4, 3, 2, 1, 0, finished”, and that you were told in response to your question that this person has just finished reciting the series of positive integers backwards from one billion. If a person could manage one integer per second for eight hours a day, then that person could count a little over ten million integers per year. Thus, it would take not much short of one hundred years counting at one integer per second for eight hours a day to count backwards from one billion to zero. It is absurd to suppose that any person will ever actually do this (unless people become *very* much longer lived in the future). And yet one billion is such a tiny number!

Setting aside these kinds of considerations, however, it is not at all obvious that there is a further sense in which Wittgenstein’s claim is true. Since the person ends their counting “... , 5, 4, 3, 2, 1, 0, finished”, it may be tempting to suppose that the person has set out with the aim of working their way backwards through the positive integers, i.e. that they began with the thought that they would carry out this task, and then set about carrying it out. But, of course, this way of conceiving of the story is of very dubious intelligibility, since there is no greatest positive integer from which the counting can begin. In order for the story to have a more plausible claim to logical consistency, it must be that the person has *always* been counting, and has *always* been equipped with the desire to say “finished!” and stop counting as soon as zero is reached. (Note that I haven’t said outright that the version of the story which is currently under consideration is logically inconsistent. I do not think that “infinity machines” are logically inconsistent; and it is not completely clear that an infinity machine could not carry out the task in question. However, I do not wish to pursue these considerations here.)

Oderberg finds a different kind of difficulty that lies in the fact that the person has “lived from all eternity only to arrive at the present” (20):

Applying the scenario to the case of the universe considered as a chain of events stretching back into the past, the absurdity is no less apparent. Could the chain be infinite? But then how could the present moment ever arrive? Simply adding moments gets you nowhere, since no amount of additions of moments gets you to a given moment if the addition does not begin at any specific moment.

Here, I'm inclined to repeat my previous response to Craig on what I take to be the same point. *Every* addition of moments begins at a specific moment: this year began at the end of last year; last year began at the end of the year before; and so on. The present moment "arrives" because this year was added to last year; last year was added to the year before; the year before was added to the year before that; and so on. Where is the problem? If there is a problem here, I do not think that Oderberg has made any further progress in the attempt to give a clear account of exactly what it is. When Oderberg cites Hospers' question—"If an infinite series of events has preceded the present moment, how did we get to the present moment? How could we get to the present moment—where we obviously are now—if the present moment was preceded by an infinite series of events?"—I do not see why it *could not be* perfectly adequate to answer with the observation that we got to the present moment from the previous moment; that we got to the previous moment from the moment before that; and so on. If there can be actually infinite collections formed by successive addition, then the answer will be perfectly adequate; if not, not. We are not in the least bit closer to an argument that is capable of decisively resolving the clash of intuitions that arises here.

## 11

As I mentioned at the beginning of this article, Oderberg claims to vindicate Craig's contention that "The Tristram Shandy Paradox" supports the claim that a collection formed by successive addition cannot be actually infinite. In my view, the preceding discussion shows that this is not so. There is nothing in what either Oderberg or Craig says which suffices to show that any version of "The Tristram Shandy Paradox" supports the claim that a collection formed by successive addition cannot be actually infinite. If there is support to be found for this premise in the *kalam* cosmological argument, then it seems to me to be more or less certain that it must be found elsewhere.

In conclusion, I shall *tentatively* advance a different argument in support of the conclusion that it is more or less certain that "The Tristram Shandy Paradox" does not provide support for the claim that a collection formed by successive addition cannot be actually infinite. If no collection formed by successive addition can be actually infinite, then any story involving an actually infinite collection formed by successive addition should seem as absurd as any other such story, when considered with respect to this feature alone. (No story which contains an explicit contradiction is more absurd than any other story which contains an explicit contradiction, at least when considered solely with respect to the fact that it contains an explicit contradiction.) But—as Oderberg's own discussion aims to bring out—many people suppose that there is a vast difference between the apparent acceptability of TSP<sub>1</sub> and TSP<sub>5</sub>, even though both are stories involving an actual infinity formed by successive addition. In consequence, there is

clearly reason to think that, to the extent that there is something especially problematic about TSP<sub>5</sub>, this is not the result of the fact that it is a story about an actual infinity formed by successive addition. (If there is something wrong with this line of thought, I can't yet see what it is.)

### References

- Craig, W. (1979) *The Kalam Cosmological Argument* London: Macmillan
- Craig, W. (1993) "Graham Oppy on the *Kalam* Cosmological Argument" *Sophia* **32**, 1-11
- Eells, E. (1988) "Quentin Smith on Infinity and the Past" *Philosophy of Science* **55**, 453-5
- Hospers, J. (1967) *An Introduction to Philosophical Analysis* London: RKP
- Oderberg, D. (2002) "Traversal of the Infinite, the Big Bang, and the *Kalam* Cosmological Argument" *Philosophia Christi*, this issue. (Page numbers in the text refer to the manuscript version.)
- Oppy, G. (1991) "Craig, Mackie and the *Kalam* Cosmological Argument" *Religious Studies* **27**, 189-97
- Oppy, G. (2002) "Arguing About the *Kalam* Cosmological Argument" *Philo* **5**, 1, 32-59
- Russell, B. (1903) *The Principles of Mathematics* London: Allen and Unwin
- Small, R. (1986) "Tristram Shandy's Last Page" *British Journal for Philosophy of Science* **37**, 213-6
- Smith, Q. (1987) "Infinity and the Past" *Philosophy of Science* **54**, 63-75, reprinted in W. Craig and Q. Smith (eds.) (1993) *Theism, Atheism and Big Bang Cosmology* Oxford: Clarendon, 77-91