

Candidate 3 evidence

Advanced Higher Dissertation 3

To what extent does the Kalam Cosmological argument convince us of the existence of God?

The cosmological argument is not a singular argument, but rather a type of argument that generally concerns facts about the universe or processes in the universe such as change, motion, causation, contingency or finitude. From these facts/processes the arguments then infer that there is a cause of the universe, usually understood to be 'God'. One of the most influential cosmological arguments in recent decades is the 'Kalam Cosmological Argument' (KCA), originally written by twelfth century Muslim theologian Al-Ghazali and famously developed by William Lane Craig. The argument is rooted in medieval Islamic theology, hence its name, which means 'medieval theology' in Arabic.

Craig presents the argument as a simple syllogism:

1. If the universe began to exist, then the universe has a cause of its beginning.
2. The universe began to exist.
3. Therefore, the universe has a cause of its beginning.?

It should be noted that the KCA doesn't explicitly argue for the existence of God, it simply argues that there is a cause of the universe. Craig's argument for the existence of God (in this instance, 'God' refers to a 'beginningless, uncaused, timeless, spaceless, changeless, immaterial, enormously powerful, Personal Creator of the universe) does, however, follow directly from the KCA. As such, the KCA is fundamental to Craig's argument for the existence of God, and I will consider Craig's argument for God a final part of the whole KCA throughout the rest of my dissertation.

In this essay, I aim to show that the KCA is an unconvincing argument for the existence of God for two principal reasons. The first reason is that the second premise of the KCA (the universe began to exist?) lacks sufficient support. Craig puts forward two philosophical and two scientific arguments for the second premise; I will argue that we should reject the philosophical arguments. As Craig considers the philosophical arguments to have much more importance than the scientific arguments, this will be enough to show that the second premise lacks sufficient support. The KCA is a deductive argument, which means that, if any one of the premises is false, we must reject the conclusion. The second reason I will argue that the KCA is an unconvincing argument for God is that even if the science which supports the second premise provided sufficient evidence for it the final part of the argument which claims that the cause of the universe must be God is flawed due to a contradiction it makes about the timeless and temporal states of God.

The First Philosophical Argument for the Second Premise

In this section, I aim to show that the first philosophical argument for the second premise of the KCA (that the universe began to exist) is unsuccessful due to the failure of the analogy used to support it. The consequence of this would be that the second premise is weakened and the KCA is less convincing as an argument for the existence of God. The first philosophical argument is outlined as follows:

1. An actual infinite cannot exist
2. An infinite temporal regress of events is an actual infinite.
3. Therefore an infinite temporal regress of events cannot exist.

We must first clarify what is meant by an 'actual infinite'. The concept comes from Aristotle, who made the distinction between the 'potential and the 'actual infinite?' A potential infinite tends towards infinity as a limit, but never reaches it. For example, we could half the length of a finite distance again and again, without end. The actual infinite was not commonplace in mathematics until a mathematician named Georg Cantor brought about the beginnings of set theory in 1873, which is now a well developed branch of mathematics. Set theory allows us to define an actually infinite set as one which is equivalent to a proper part of itself. For example, the set of natural numbers {0, 1, 2, 3, } is actually infinite because there is the same number of odd numbers in the set (a proper part of it) as natural numbers (every number in the set). This distinction is important because Craig has no quarrel with the existence of a potential infinite, it is actual infinities which he believes cannot exist in the real world.

In defence of the first premise, Craig argues that an actual infinite could not be actualized in the real world because it would result in absurdity. To illustrate this, he gives the example of 'Hilbert's hotel'. A thought experiment created by mathematician David Hilbert. Hilbert asks us to imagine a hotel with an infinite number of rooms, each occupied by a guest. When a new person arrives asking for a room, we simply have to move each guest into the next room (i.e. #1 into #2, #2 into #3, etc.) to make space for the new guest in room #1, despite the fact that every room in the hotel was full when they arrived. This is absurd. Furthermore, when an infinite number of people arrive asking for rooms, we can simply move each guest into the room number double their current one (i.e. #1 into #2, #2 into #4, etc). We now have an infinite number of odd-numbered rooms to move in new guests, even though hotel was full when they arrived, which seems even more plainly absurd.

I believe it is a reasonable inference from the illustration that an infinite number of rooms can be emptied simply by shifting guests. However, I think the difficulty which arises for Craig comes from his generalisation of the claim that an actually infinite number of coexisting things is absurd to the claim that any actual infinite (e.g. an infinite temporal regress of events) cannot exist in the real world. If Hilbert's Hotel does not prove that any actual infinite cannot exist in the real world, then it fails to support the second premise of the KCA, lessening the extent to which it convinces us of the existence of God. The argument is analogical, which means that the actual infinite described in Hilbert's Hotel must be sufficiently similar to other actual infinities for the same conclusion to be drawn about them: that they cannot be actualized in the real world. Wes Morriston argues that Hilbert's Hotel is not sufficiently similar to all other infinite sets for the analogy to work. He writes that Hilbert's Hotel only proves that "there cannot be an actually infinite set of a certain sort?". By "certain sort", Morriston means an infinite set of coexisting physical things. In other words, the absurdities that we observe in Hilbert's Hotel are present because the infinite hotel rooms/guests exist at the same time. This is because their coexistence forms an essential aspect of the Hilbert's Hotel analogy: that the guests have a particular relationship with the rooms which allows the hotel to be full or empty, and for them to shift rooms. This underpins the entire analogy and the absurdities which it illustrates, because each absurdity noted follows from the movement of one or more persons to a different room. The implication of this is that the relationship generated by the coexistence of the rooms plays a crucial role in bringing about the absurdities that we see in Hilbert's Hotel. I believe that this has massive significance in our evaluation of the analogy as we can now compare this basic aspect of Hilbert's Hotel (the coexistence of rooms and guests) accurately with other actual infinities. In the case of an infinite regress of events, the events do not coexist, which means that they don't have the same relationship to each other as hotel room objects do. The implication of such a fundamental difference between Hilbert's Hotel and an infinite temporal regress of events is that the analogy fails. The consequence of the failed analogy is that we cannot draw a general conclusion that all infinite sets cannot be actualised in the real world. This completely undermines the first philosophical argument for the second premise that the universe began to exist, which lessens the extent to which the KCA is a convincing argument for God.

The failure of this analogy could be avoided if it could be shown that Hilbert's Hotel and an infinite regress of events are not as essentially different as they appear. If it were the case that the coexistence of the rooms in Hilbert's Hotel did not entail a particular relationship with the guests, in which they could move between rooms (which was the cause of the absurdities in the hotel), while still maintaining the absurdities of the original analogy, then there would be no issue. This is because

the coexistence of the rooms would not be the source of our inability to actualize an actual infinite. Craig claims that Hilbert's Hotel is still analogous to any infinite set if we simply posit that all doors in the hotel are locked. If we imagine the guests moving between the rooms, we can still recognise the absurdities noted in the original illustration. He says that, in order to recognise these absurdities, "you don't have to actually go through the trouble of moving the people physically ". The implication of this would be that the coexistence of the hotel rooms did not entail the sort of relationship between the guests and rooms that creates the disanalogy with an infinite regress of events, allowing the analogy to function and provide a foundation for the second philosophical argument, which supports the KCA as a whole.

However, the implication of locking all the rooms in Hilbert's Hotel is that we remove the illustration from its setting in the real world. A vital condition of Hilbert's Hotel is that people can move between rooms; otherwise, we are no longer speaking about the actualization of actual infinities in the real world, but instead about what, in theory, is mathematically possible and impossible to do with infinite sets. The consequence of this is that the locked-room version of the hotel loses its relevance as an illustration of the impossibility of actual infinities in the real world. This totally undermines the significance of the hotel. Landon Hedrick writes, "If the thought-experiment is described so that the guests are free to switch rooms and check out of the hotel, then it isn't analogous to past events [...] And if the thought-experiment is redescribed, in the way Craig imagines, to make it more analogous to past events, then it comes with a cost'", the cost being, of course, that the hotel no longer illustrates the actualization of an actual infinite in the real world. The consequence of this is that there is fundamentally no justification for the claim that an infinite temporal regress of events cannot exist, leading us to reject the first philosophical argument for the second premise of the KCA. I believe this is incredibly damaging to the second premise, as it now must rely only on the second philosophical argument and the lesser scientific arguments for support. In turn, the KCA convinces us of the existence of God to a lesser extent.

The Second Philosophical Argument for the Second Premise

In this section, I aim to show that we should reject the second Philosophical argument due to an unjustified assumption Craig makes regarding an infinite regress of past events, which is exposed by J.L Mackie. As we have rejected the first philosophical argument, this leaves the second premise without sufficient support, rendering the whole KCA unconvincing as an argument for God.

Craig's second philosophical argument for the second premise of the KCA (that the universe began to exist) is independent of the first one, and so is unaffected by criticism of it. It can be written as follows:

1. A collection formed by successive addition cannot be an actual infinite.
2. The temporal series of events is a collection formed by successive addition.
3. Therefore, the temporal series of events cannot be an actual infinite.

To illustrate the argument, Ghazali observed that the series of past events is like dominoes. Each one successively knocks over the next, until we get to today, the last domino. But if we claim there is an infinite number of past events, then today's domino can never fall, as there will always be another domino to fall before that one, and another before that one.

Craig's position seems intuitively appealing because it is difficult to comprehend forming an infinite series of events through successive addition in the absence of a starting point intuition, the KCA would be convincing as an argument for God to a greater extent. However, I think the basic flaw in the second philosophical argument is that Craig assumes a starting point of the universe, which was an infinitely long time ago. Mackie writes, "to take the hypothesis of infinity seriously would be to suppose that there was no starting-point, not even an infinitely remote one." To understand Mackie's criticism, we might consider one of Ghazali's analogies. The dominoes analogy presupposes that one domino fell before an infinite number of other dominoes, leading us to the impossible task of pushing over all the ones in between that domino and today's one. But if we are to consider infinity properly, there would have been no first domino at all, and so there would be no issue in forming an actual infinite by successive addition. This would totally undermine the second philosophical argument, therefore undermining the second premise of the KCA and the extent to which the KCA convinces us of the existence of God. Mackie also claims that Craig's second philosophical argument simply exemplifies a prejudice against the actual infinite." This means that Craig has rejected the existence of an actual infinite on the basis of an underlying assumption (that there was an infinitely distant starting point) and that, were Craig to eliminate this assumption, there wouldn't be anything impossible about the existence of an infinite temporal regress of events. I think this reinforces the importance of Mackie's criticism and its implication that the KCA would become an unconvincing argument for God.

I do not believe the claim that Craig has a prejudice against the actual infinite is strongly grounded.

This is because Craig only rejects the possibility of the existence of an actual infinite in the real world in the first philosophical argument, whereas, in the second, he simply claims that an actual infinite cannot be traversed' (this term was often used in mediaeval versions of the argument). In other words, he only claims that an actually infinite number of past events could not have passed, rather than making a claim about the existence of actual infinities generally. Given that the first and second philosophical arguments are independent of each other, no such 'prejudice' is expressed here. Nevertheless, Mackie's central objection that Craig makes the assumption of an infinitely distant starting point still holds significant weight against the KCA. This is because, ultimately, Craig's assumption is foundational to the second philosophical argument. It is his basis for the claim that a collection formed by successive addition cannot be an actual infinite', and the rejection of this statement entails rejection of the second philosophical argument entirely. As we have already dismissed the first philosophical argument, this would render the second premise of the KCA (that the universe began to exist) largely unjustified, and therefore, the KCA would be an unconvincing argument for God.

The only response that could increase the extent to which it is a convincing argument for God is that no assumption of a starting point has been made. If it is the case that Craig has correctly understood the beginningless nature of an actually infinite regress of events while still coherently arguing against them, then Mackie's criticism of the second philosophical argument would not have any significance. The consequence of this would be that the second philosophical argument could still function as support for the second premise of the KCA. Craig claims that he recognizes that an infinite regress of events would be beginningless, and that this 'makes the difficulty worse'²⁰. By this he means that forming an infinite series by successive addition is impossible specifically because of its lack of beginning. However, it is unclear what exactly Craig's justification for this is. Craig claims that, if the past was formed through successive addition, it would be just as impossible to reach today as it would be impossible to count up all the negative numbers, ending in zero.[?] But this is only a further example of an infinite set with no first member; it does not actually provide justification as to why we could not have "traversed" an infinite past. Certainly, we might have a strong intuition that it is impossible to traverse an infinite set of this kind, but this must be founded in something. As Oppy writes, "the intuition which grounds the claim that the infinities in question cannot be traversed is that there is no beginning for such infinities ". Yet the lack of a beginning is merely a characteristic of the sets we are discussing, not justification as to why they cannot be traversed. We can see that, while Craig may not express a prejudice against actual infinities generally in the second philosophical argument, he does express a prejudice against the traversal of infinite sets with no first member. |

therefore believe that Mackie's criticism of the KCA massively undermines the second philosophical argument for the second premise of the KCA (that the universe began to exist), and that it should be rejected. The consequence of this is that we have dismissed both philosophical arguments for the second premise, leaving it largely unsupported. As a result, I believe the KCA is ultimately unconvincing as an argument for God.

The Scientific Arguments for the Second Premise

As specified in the introduction, Craig himself sees the philosophical arguments which support the second premise of the KCA as much more important than the scientific arguments, which is why I have already concluded that the KCA is an unconvincing argument for God. However, the scientific arguments are clearly still relevant to the second premise, so I will outline them briefly.

The first scientific argument centres around the Big Bang Theory, which predicts that the universe had a beginning because everything in the universe has expanded from a space-time singularity. The second comes from the Second Law of Thermodynamics, which says that a system will become increasingly disordered unless there is energy fed into it. This means that all the energy within the universe will eventually be spread evenly throughout it, leaving it void of life (this is called the "heat death" of the universe). The universe therefore cannot have existed eternally because the heat death would have happened already.

Now, it is my aim to argue that KCA is an unconvincing argument for God. As such, I will now argue that, even if the scientific arguments did successfully support the second premise, the final part of the KCA – which claims that the cause of the universe must be God – is flawed due to a contradiction in Craig's account of God's temporal and timeless state. We should therefore find the KCA an unconvincing argument for God in any case. It is important to specify that the term 'God' will refer to a 'beginningless, uncaused, timeless, spaceless, changeless, immaterial, enormously powerful, Personal Creator of the universe.'

The Argument for the Existence of God

Craig begins his argument that the First Cause must be God by listing qualities which we know must be possessed by the cause of the universe. He has argued for the impossibility of an infinite series of causes, and so the First Cause must be uncaused. The universe encompasses space and time, and so, in order to create the universe, the First Cause must 'transcend' space and time and be non-physical.

It must also be incredibly powerful, as it is the source of all of the energy and matter within the universe. We also know that the First Cause must be sufficient to produce its effect (the universe), but this creates a problem, as it implies that the universe must have existed as long as the Cause has. Craig argues that the solution to this is that the Cause is a personal being with free will. In this way, the Cause (God) could have chosen to create the universe, allowing the universe to have a beginning while its cause was timeless. He then goes on to argue that God (who is timeless sans the universe) must begin his temporal state at the creation of the universe. He enters into time when he creates the universe'

I believe it is this final part of Craig's argument which results in the KCA's failure to convince us of the existence of God, as there is a contradiction found in Craig's account of God at the moment that He creates the universe. Craig claims that God's act of creating the universe and the actual creation of the universe (two distinct things) happen simultaneously. He has also previously argued that God must transcend time because He is the creator of time, which implies that God must be timeless at the moment that the universe is created (time is encompassed within the universe). And yet, as we have seen, he has also argued that God enters his temporal state when time begins. The implication of these claims is that God must be both temporal and timeless at the beginning of the universe, which is impossible. Wielenberg describes the contradiction: "God must be temporal at [the moment of creation] because the universe exists at [the moment of creation]; yet He must be timeless at the moment of creation] in order to have [...] the power to create the universe." I believe that this poses a massive problem for the KCA, as it seems that the only way to avoid the contradiction would be to accept that God is either timeless or temporal at the beginning of the universe, each of which have significantly damaging consequences for the argument as a whole. If we accept that God is timeless at the beginning of the universe, then it is clear how He might possess the power to create the universe, but not how He would act on that power. The act of creating the universe seems to be an inherently temporal thing, and furthermore, this temporal action is a necessity for showing that God is a personal being. A personal being could not be anything other than temporal, as it must have the ability to choose how to act and to carry out those acts. We can therefore see that the consequence of accepting that God is timeless at the beginning of the universe leads us to reject a fundamental quality of God (that He is personal) and, moreover, leaves us at a loss as to how He acts to create the universe. Alternatively, if we accept that God is temporal at the beginning of the universe, it is unclear how He has the power to create time, as He already exists within time itself. It is therefore apparent that either solution to the contradiction is

significantly flawed, and if there is no alternative solution, we would ultimately solidify that the KCA is an unconvincing argument for God.

Craig claims that the obvious solution is to accept that God is temporal, and not timeless, at the moment He creates the universe, ⁸ which means that he rejects the claim that God must be timeless in order to have the power to create the universe. Instead, Craig asks us to imagine a world in which God does not choose to create a universe. His power to do so remains intact, but he does not exercise it. If he does choose to create a universe, this act of creation is simultaneous with the first moment of time. The consequence of this is that God does not need to be timeless and temporal at once, so Craig avoids the contradiction. A further supposed consequence is that Craig avoids the implication that God's creation of the universe in His temporal state entails a lack of power on His part. However, I do not believe that escaping this implication is as easy as it appears to be. In the situation described, Craig does not explain how it is that God possesses the ability to cause anything in his timeless state. If He is truly in His temporal state when he acts to create the universe, then the only causal power he seems to have is within this temporal state. A consequence of this is that it becomes inaccurate to claim that he has free will in his timeless state, because, while he may possess some kind of timeless intention to create a universe, He cannot actually create it unless He is temporal. We might ask what it is that allows him to enter this temporal state. If He has no causal power in His timeless state, then his entrance into His temporal state is completely random, and God being the "cause" of the universe becomes just as plausible as the universe beginning with no cause at all. We can therefore see just how damaging the implications of Craig's position are. We must either find a total contradiction in his argument, or avoid the contradiction by taking on a position with such significant flaws that it leads us to a God with no causal power. As a result, I believe we must find the KCA an unconvincing argument for God.

In conclusion, the KCA is unconvincing as an argument for God firstly because the philosophical arguments Craig presents for its second premise fail, which leaves a lack of support even for the initial conclusion that the universe has a cause of its existence. The first philosophical argument must be rejected due to the failure of the Hilbert's Hotel analogy, and the second must be rejected due to Craig's underlying assumptions, which are made clear by Mackie. Even if we disregard this fundamental issue on the basis that the science provides some support of the second premise, the KCA continues to be unconvincing as an argument for God due to the contradictions in Craig's account of God's timeless and temporal states.