Eternity and Time in William Lane Craig's Kalam Cosmological Argument

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The clocks were functioning, thus someone must have set them in motion, even if their winding had been designed to last a long time. —Umberto Eco

William Lane Craig advances an argument for the existence of God in *The Kalam Cosmological Argument* (London: Macmillan, 1979). In his book, Craig argues that since the universe began to exist, the efficient cause of the universe's existence must have been God. His modern version of the kalam cosmological argument—first formulated by the *Mutakallimun*, the Muslim scholastics of the ninth century—rests on empirical arguments as well as *a priori* considerations that an actual infinite is impossible.1 Since an actual infinite is impossible, Craig argues, the universe must therefore be finite in time. In other words, the universe must have begun to exist.

Unfortunately, Craig's admirable effort to prove the finititude of the universe leaves him in the position of the runner at Marathon. While he has expended all of his energy to bring the news of the universe's beginning to us, he has little strength left to argue convincingly for its cause. Craig concludes that the historical kalam arguments for the temporality of the universe "demonstrate that the world had a beginning at a point of time. Having demonstrated the temporality of the world, the theologian may then ask why it exists" (1979, 9-10). Thus, the modern version of the kalam cosmological argument is (1) *everything that begins to exist has a cause of its existence*; (2) *the universe began to exist*; therefore (3) *the universe has a cause of its existence* (1979, 63).

Many commentators have insisted that these premises are unsound. Perhaps the most rigorous criticism has come from Quentin Smith (1988, 1994) who argues from quantum mechanical considerations that the universe could begin to exist without an efficient cause. Smith (1987) also argues that the kalam argument does not preclude the possibility of an infinite past. Craig (1991) reiterates that an actual infinite by successive addition is impossible and so the past cannot be infinite either. I shall argue that Craig's conclusion is problematic and requires additional argumentation before the *kalam* argument successfully demonstrates that God is the efficient cause of the universe.

In reaching the conclusion to God as the universe's cause, Craig relies upon the Muslim *principle of determination*, first argued by al-Juwayni in his *Irshad* and retold by Averroës. The principle of determination states that any being or effect requires a *particularizer*, a being who decides the course of an action between two likely choices (Wolfson 434-7). The universe may have been larger or smaller than it is, many billions of years older or younger, or it may have even failed to exist; any of these possibilities are admissible in that they are logically possible. With respect to the universe's existence, Averroës states that "the admissible is created and it has a creator, namely, an agent, who out of two admissibilities turns it into one rather than the other" (qtd. in Wolfson 437-8). Only a sentient being can make the choice to create the universe at the moment that it was created; the Creator could have created the universe an hour earlier or waited several days before doing so. As in Craig's argument, al-Ghazali uses the argument from particularization in his *Tahafut* to state that the

creation of the universe at that particular moment in time was the result of the determined will of the Creator (Wolfson 439).

I shall now present Craig's argument for God's existence after which I will carefully scrutinize the notions of time and eternity that Craig employs in it. Craig argues that the conclusion to his kalam argument suggests two possibilities: either the conditions that produced the universe are present from *eternity* (in which case the universe is also eternal) or the conditions produced their effect *in time*, in which case the universe had a beginning in time (1979, 150). If the universe's cause was mechanical (naturalistic) then either the universe has existed from eternity or it could not have existed at all. This is because any effect must immediately follow a mechanical cause (1979, 150-1). The wind that causes a leaf to detach from its branch cannot determine its own course of action. As soon as the set of necessary conditions within nature is present, the wind must blow. Similarly, if a mechanical set of conditions had produced the cause of the universe's existence, then the universe must have immediately begun to exist. A mechanical cause is unintelligent and cannot distinguish one particular moment in time from another. Therefore, a first mechanical cause could not have produced the universe in time.

A personal Creator, however, may choose to produce an effect at any time the Creator wishes, just as I may choose to eat an apple now or wait until later to do so. Since the universe began to exist—rather than existing from eternity—it is reasonable to conclude that the cause of the universe was a sentient being who willed from eternity to create a temporal universe. Since an actual infinite is impossible, the universe began to exist and could not have come into existence through a mechanical cause. The fact that the universe began to exist requires a particularizer who *ex nihilo* created the universe. Thus, Craig concludes that "if the universe began to exist, and if the universe is caused, then the cause of the universe must be a personal being who freely chooses to create the world" (1979, 151).

To say that the particularizer could have created the universe earlier, assumes that it makes sense for there to have been a time before the universe. Craig's argument then seems to presuppose an absolute view of time since the particularizer's choice to will the universe into existence "now or later" is otherwise meaningless in a state of affairs in which the universe and space-time do not yet exist. On a relational view of time, however, there can be no "earlier" in which events precede the universe.2 If the relational view is correct, time exists only in relation to other bodies in motion. If time is absolute, then we are justified in pondering why the Particularizer chose at that one moment preceding the universe to create it at that time. However, if time is relational, then there can be no time prior to the universe and hence no grounds for concluding that a determination was made *in* time. Clearly, this problem is aggravated in the kalam argument by an unclear notion of the concept of *eternity*. Does Craig understand eternity to mean relational atemporality outside of creation, or does he instead view eternity as an infinite duration of time? I would like to turn to this question briefly before discussing the kalam argument's conclusion.

Craig can mean one of two things in the notion of eternity. Eternity is either a finite causal chain of events within infinite, absolute time, or eternity is a timeless state of affairs that denotes the absence of existence since there are no bodies in motion. Let us consider the possibility that eternity is an infinity of time first. If eternity is infinite duration or "infinite time" per a realist view of time, then we are faced with the difficulty of explaining what events, if any, occurred during the quantity of time preceding the existence of the universe. To put this in a theistic context as Augustine wondered, what was God doing before God created the universe? (*Confessions*, XI, 13-14). This same bout of horror vacui led the Mutakallimun to argue that the creation of the universe was the result of a

choice made freely by its Creator. Richard Sorabji calls this the problem of "Why not sooner?" and with respect to absolute time in Muslim philosophy,

> Ghazali's discussion is particularly interesting. He reproduces . . . the Augustinian solution that there *was* no sooner. Against the 'Why not sooner?' argument, Ghazali repeats Philoponus' strategy of responding with the counter-problems about infinity (237).

Craig also points out that al-Kindi felt that time was finite because an actual infinite is impossible and time is a quantitative thing that must be finite in measure (1979, 25). Saadia also felt that the concept of infinite time is reduced to absurdity because of the problem of regressing an actual infinite (Craig, 1979, 39). Hayyat and Saadia argue, in the spirit of Zeno before them, that beginningless time is impossible since an infinite distance cannot be traversed and an infinite succession of events would never be able to arrive at the present (Wolfson 415-420). If time is finite then, what do we call that state of affairs that precedes time? Al-Ghazali argued that we are deceived if we believe that there existed a "time" before time (1979, 47). In his *Confessions*, Augustine calls the timeless void outside of creation "true eternity" (XI, 9) and Aziz Ahmad, in his study of the Mutakallimun, refers to the timeless void as "contact with eternity" (25). Ahmad admits that Muslim thought with respect to time is in conflict with Newtonian absolutism, and so he defines time in the Aristotelian sense of motion among entities. Thus, in Muslim thought time is not absolute, but rather "it is the succession of entities which gives rises [sic] to the notion of time [and] coming and going are acts which mark division in an otherwise static eternity."3 It would seem then that, in the historical context of the kalam argument and its prohibition of an actual infinity, eternity must be understood as a timeless state of affairs rather than a beginningless duration of absolute time. If this is so, then it is reasonable to conclude that the kalam argument allows eternity to mean a changeless, timeless void apart from the existence of the universe.

Craig seems to agree with the relational view of eternity. However, when he discusses the problem of an actual infinite, he slips into an absolute view of time to use the principle of determination in the kalam argument's conclusion.4 He argues that the universe began to exist because of thermodynamic considerations and the impossibility of an actual infinite. However, if eternity is a timeless void, then the universe is eternal in the sense that there were no moments in which the space-time continuum did not exist. Yet in order to effectively employ the argument for a particularizer who decides a course of action at a given moment, Craig finds it is necessary to revert to an absolutist view of time. (It is either that or he must beg the question for absolute time under the implicit assumption that a Creator exists prior to the universe.) This equivocation is seen most clearly in Craig's conclusion where he asks "why did the universe begin to exist when it did instead of existing from eternity?" (1979, 150). Similarly, in his discussion of big bang cosmology, Craig asks, "if the big bang occurred in a super dense pellet existing from eternity, then why did the big bang occur only 15 billion years ago? Why did the pellet of matter wait for all eternity to explode?" (1979, 117). Craig's concern is anticipated by Averroës who also wondered how the Creator could choose between two admissible and equally likely outcomes. However, Craig wrongly presupposes an ontological view of time that conflates timeless eternity with temporal infinity—an infinity that is supposed to be *a priori* impossible in the kalam argument. In other words, if the super dense pellet exists "from eternity" how can it "*wait* for all eternity" before producing its explosion? In a relational view of time, the universe's existence from the first moment *is* its existence from eternity; thus, Craig's questions only make sense from a realist view of time. Yet, we have already seen that Craig relies upon a relational

view of time in his argument to prove that the universe cannot be infinite in time. The kalam argument becomes entangled in this conflated notion of eternity when it argues that God was a particularizer who freely chose to create the universe in time.

Cannot the universe begin to exist in time and its cause be infinite in the sense that the Creator is everlasting? Let us suppose for a moment that time is ontologically real. If this is so, then necessarily the Creator must also exist in time. However, if the Creator produced the universe in time then there is no reason to think that it was the first cause or that God is that cause. We might apply the principle of sufficient reason to ask whether God is a first cause or one of many possible intermediate causes in time. Grünbaum (1989) points out that

> if literally *everything*—including the universe as a whole—has a cause to which it owes either its state-of-being or even its very existence, it becomes imperative to ask for the *cause* of God's state-of-being or even existence. Why should He be an uncaused cause? (383; his emphasis).

Craig (1992) feels that Grünbaum's argument is "flimsy" because "according to the kalam [argument] everything that *begins* to exist has a cause. Since God is eternal, He requires no cause" (236; Craig's emphasis). If time is absolute—and the universe began to exist while God exists from infinity—then Craig's reply seems quite cogent. But if eternity is timelessness, then his reply is insufficient because it excludes anything outside of space-time as requiring a sufficient reason for its existence. If God's atemporal existence requires no cause then we must also admit that an atemporal quantum singularity does not require a cause either. This is to say that, in a relational view of time, if there is no time t prior to the existence of the universe at $t = 0$, then any efficient cause (such as an initial big bang singularity) must be an eternal, uncaused cause. In other words, we would have no means of determining whether the efficient cause of the universe was naturalistic or supernaturalistic. One could press the principle of sufficient reason to argue that, despite its timeless nature, an initial singularity is still a positive fact that requires a reason and, therefore, must be an intermediate cause rather than the first cause. If an initial singularity did produce the universe and was itself efficiently caused by God, then God might be that elusive first cause. However, there is no way of knowing this short of arbitrarily saying so, or as many have pointed out, stopping Schopenhauer's hired cab at God's doorstep and dismissing it promptly thereafter. Unless God's role as first cause is begged, it seems incumbent upon us to ask who or what efficiently caused God. In a relational view of time, a predicate other than "eternal" must be our criterion of correctness for determining a first cause, since an initial singularity and the Creator are otherwise synonymous in this regard.

Craig (1992) argues that the efficient cause of the universe must be God because only God can produce a temporal effect from an eternal cause (235). However, if Craig understands eternity to be timelessness, this argument loses much of its force because we have seen that an initial singularity can also produce a temporal effect from an eternal cause. Since Craig presupposes that God necessarily exists prior to the universe, his argument generates an equivocation between eternity as an infinite duration of time and eternity as relational timelessness. Yet, this maneuver is unwarranted. Craig realizes that there is a problem with speaking about events in this manner, and so reduces the problem of an eternal universe to the notion of a permanent universe:

> The universe has ‘always’ existed in the sense that there is no past moment of physical time at which it did not exist; but it has not ‘always’ existed in the strong sense of being permanent, since it had a beginning of its existence, and therefore it is sensible to ask for its cause (1992, 239).

This is a curious argument. It is argued from the kalam argument’s second premise that the universe must have begun to exist, because from *a priori* considerations the existence of an actual infinite (and an actual infinite by successive addition) are impossible. Yet, if the universe must have begun to exist because it is not possible for a thing such as the universe to exist infinitely, then it follows that God is a being who also cannot exist infinitely. Since *a priori* the existence of an actual infinite implies an absurdity, God’s existence must also be thought of as finite for the same reason. Clearly, the use of "permanence" in this argument is lacking because under his criterion of the impossibility of an actual infinite, everything (to include God) must owe its existence to something else.5

The problem is solved if we realize that the question of what comes before the universe is meaningless. If time is a necessary component of the universe and is nonexistent in an initial singularity of infinite density and curvature, we cannot meaningfully inquire into events that exist outside of that singularity. Grünbaum (1989) warns that asking "What *caused* the big bang to occur at $t = 0$?" commits the fallacy of presupposing that there is a "before" to speak of (389). With respect to the universe, we should not say that after the initial singularity at $t = 0$ space-time exists, since the use of *after* begs the question of a time *before* the universe at which it did not exist (Grünbaum 390-1). It is our grammar in the verb "to cause" that is the real culprit here. When considering causation, we think that there must be a prior action acting upon the object taking the verb. Even if there can be no temporal events outside of the universe, we want to say that the universe must have a prior cause to its existence. Our depth grammar with respect to the notions of "God" and "eternity" has produced intractable problems because we are unsure of what these utterances really mean. In the absence of clarity, we stumble around with these words and attempt to use them in a way that lacks sense or purpose.

In conclusion, I find that the kalam argument is a very convincing proof for the notion that the universe began to exist. I must admit to sharing Craig’s existential concern that something should exist rather than nothing. But further than this I cannot go. There are limits to human reason and the desire to push beyond those limits will produce only confusion. The kalam argument’s conclusion that a particularizer acted as the universe’s cause centers around two equivocal notions of *eternity*. When Craig argues that the universe’s cause must have been God because a temporal effect arose from an eternal cause, he does so on the assumption that the particularizer chose freely to create the universe within time. However, the universe and God are both eternal in the weak sense that no temporal moments precede either being. To say that the universe fails the test in a strong sense is really saying that the universe is a positive fact that requires a sufficient reason for its existence. However, that the principle of sufficient reason can be employed against everything that exists, including God, should make us suspicious of the usefulness of this principle in the argument. Simply put, the kalam argument carries too heavy of a burden in its task to show God as the first cause. It must assume that time is real and infinite in order to generate the puzzle of why the Creator chose to create it "now" rather than "later." Yet, it must also fall back upon a relational view of time in order to conclude that the universe is finite.

Endnotes

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1 In Arabic scholastic useage, *kalam* referred to specific theological or apologetical discourse involving proofs for the existence of God, God's justice and mercy, or doctrinal interpretations from the Qur'an. Muslim thinkers working in the kalam tradition, modified Aristotle's argument from his twelfth book of the *Metaphysics*, to argue that time is both quantitative and finite. Since time is finite, all of Creation must be finite and an eternal Creator must have willed the universe into existence.

2 Since Newton's *Principia*, time is usually spoken of as either absolute (real) or relational. Plato and Newton held an absolute view of time. On this view, time is a substratum that provides a "stage" for the actors to strut across. All states of affairs occur within the substratum of time and even if nothing else existed, time would still exist. On the other hand, Leibniz and Einstein held a relational view of time. On this view, the metric of time is ontologically nothing without states of affairs, which relate to each other in space. In short, time does not exist unless there are bodies in motion.

3Ahmad, 1974, p. 34; Craig agrees that al-Ghazali does not dispute the Aristotelian definition of time as the measure of bodies in motion, i.e., change (1979, p. 47).

4 Craig concludes that he considers the relationship of God and time to be that God exists "timelessly without creation and temporally subsequent to creation" (1986, p. 171). However, this is not to say that Craig has not advanced support for some kind of absolutism. In contrast to an Augustinian "absolute timelessness," Craig states that there exists an ontological time experienced only by God called "true temporality" ("God and Real Time," *Religious Studies* 26 [1990]: 335-347). God's true temporality may help to explain why Craig presupposes that God, as the particularizer, had to make a choice to create the universe when he did rather than earlier or later.

5 This is why Kant felt that the cosmological argument eventually reduces to the ontological argument. At some point, the proponent must stop asking for causes of causes and resort to a concept of God as something than which nothing greater can be conceived. This is the only way to stop the chain of causation from running backward ad infinitum.

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