

A Cosmological Argument Counterexample

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ABSTRACT

A Cosmological Argument Counterexample, as opposed to the usual cosmological argument, advocates that nature, the physical universe, is all of reality and exists rather than nothing at all because: 1] Something cannot come from nothing; 2] Nature is something; 3] Therefore, nature cannot come from nothing; 4] This means nature was never created; and 5] There is no alternative to nature existing; 6] Therefore, nature has an infinite past and future.

William Craig is currently the most prominent advocate of the Cosmological Argument for the existence of a god. In this paper it is argued that Craig is mistaken. An examination of his main argument reveals that only a physicalistic model of nature can be true (i.e. totally accurate and totally reliable).

Key words: naturalism, physical, cause, supernatural, supernaturalism, creation, Craig.

Craig's Argument

The usual cosmological arguments are aimed at using a god to explain why there is something rather than nothing at all. The Kalam Cosmological Argument is advocated by William Craig (Copan & Craig, 2005; Craig, 2008, 2010). Craig makes the claim that a supernatural creator explains why there is something rather than nothing. Here is that argument in brief: 1] Whatever begins to exist has a cause; 2] The universe began to exist; 3] Therefore, the universe has a cause. Each part will be first elaborated as to how Craig understands it, then his understanding of each part will be evaluated in numerical order.

1] Whatever begins to exist has a cause.

Craig claims that the cause of nature is a personal agent who makes free will (i.e. uncaused) choices and created the contingent reality of nature from nothing. The creator cannot be an abstract object because such objects have no causal efficacy. The creator must be a supernatural, incorporeal (bodiless), transcendent (transcendent of nature) mind (Craig, 2010) because it could not be part of nature. Craig wants to use supernatural causes (Copan & Craig, 2005; Craig, 2008, 2010). Craig maintains that there was a first

(supernatural) cause of nature in which something was caused to come from strictly nothing, not even space-time, fields, quantum vacuum, etc.

2] The universe began to exist.

According to Craig, the Big Bang shows that there was a beginning of nature. Since the Big Bang constitutes the beginning of all space-time and physical things, the cause or creator of nature cannot be space-time or physical things. It must be something other than nature. It must be a nonphysical, immaterial, space-less, timeless, incorporeal, changeless, beginning-less, uncaused, personal, and powerful mind, which Craig claims is his god (Copan & Craig, 2005; Craig, 2008, 2010).

3] Therefore, the universe has a cause.

By a cause Craig means something that brings about or produces its effects (Craig, 2008, 2012). Some background knowledge needed for an evaluation of Craig's argument follows.

Background Knowledge

The first premise of the Kalam argument, whatever begins to exist has a cause, is plausible only if one relates it to nature and physical causes. In physics, a physical cause is a physical force. A physical force is equal to the inertial mass of a physical object multiplied by its acceleration ($F = ma$). The inertial mass is a quantity of resistance to acceleration (Serway & Beichner, 2000). Resistance to acceleration is the signature of the physical. This idea of a physical force was introduced by Isaac Newton in about 1665 and has proven to be useful through 350 years of physics, even at the precision of the subatomic scale. Resistance to acceleration is not only an empirically well-proven definition. If there is nothing to push against, then not even in principle is there anything there. Something exists if and only if it can be pushed against. In a hypothetical example, assume there is hypothetical object 1 and object 2 and that 1 has resistance to acceleration and 2 does not. Assume 1 and 2 move toward each other. Object 1 passes through 2 without hesitation as though 2 were nothing--because 2 is nothing, nonexistent. To not have at least some resistance to acceleration is to be nothingness, nonexistent. To be nonphysical, or immaterial, is to be nothingness, nonexistent. Nonphysical and existence are mutually exclusive. Nonphysical existence is a contradiction in terms. A contradiction is a condition that is always false. False means inaccurate and/or unreliable. In objection, it may be claimed that a particle of light, a photon, is without mass. A photon has no rest mass, because it is never at rest. Nevertheless, photons do have motion mass (Serway, Moses, &

Moyer, 2005). Photons exert pressure upon the surfaces they strike. That is why surfaces they strike heat up. Photons resist acceleration and are therefore physical. All of space-time cannot have a physical cause, because all physical causes are within space-time. Physical forces work only within space-time, because acceleration can only occur within space-time. A physical cause only works upon prior existing inertial mass (energies), as the equation indicates (m). A physical cause (a physical force) that produced space-time is a contradiction. To physically cause a physical thing to come from strictly nothing is a contradiction, because there is no pre-existing material and no space-time within which a physical cause can act. According to $E = mc^2$, all energy is physical, because the m stands for inertial mass. If X does not have a physical analogue, then X is not real. For example, abstract objects, such as a mathematical triangle, do not have a physical analogue. They are, therefore, not real. There is no physical analogue of a mathematical triangle with lines that have zero height and width and points that have zero height, length, and width. Abstract objects are fictional, ideal models that we make up, and therefore cannot function as real causes. We make up the axioms, definitions, and numbers of mathematics and deduce their implications. Fictions only exist as an energy state or computational state in a computational device, such as the brain. If the supposed cause of nature does not have a physical analogue, then it is not real.

If one who claims there is nonphysical existence is asked to produce such a thing, they cannot do so, because there is nothing to produce. It is at most a fictional thing. To claim there is nonphysical existence and never produce it is to just assume that which needs to be proven. Space-time is a physical thing. In relativity theory, space and time are one thing: space-time. According to the general theory of relativity, there is something called frame dragging (Seife, 2004). A spherical object--such as the Earth--turning in space-time encounters a small resistance to acceleration. This resistance to acceleration has been measured in several ways and means that space-time itself exhibits resistance to acceleration. Therefore, space-time is physical. According to quantum mechanics, space-time is physical. Heisenberg's Principle of Uncertainty for momentum and position in conjunction with Einstein's Principle of Uncertainty for energy and time means that every point in space-time has a nonzero energy and momentum (Serway, Moses, & Moyer, 2005). According to both relativity and quantum mechanics, space-time is a physical object. Any physical thing that has a beginning has a physical cause because of the conservation laws, such as the conservation of mass/energy (energy for short). Physical composite objects, composed of the conserved quantity energy, have a beginning when at least

two energies come together, a physical force occurs, and they stay together. Any physical effect is the result of physical forces (e.g. gravitational, electromagnetic, weak, and strong). Since only the physical can be real, all real causes are physical causes. Any physical effect has only a physical cause. With the nonphysical, there is nothing to exert a force. The inertial mass (m) in $F = ma$ is equal to exactly zero, because the nonphysical is nothing. It therefore cannot exert a force, which means the nonphysical cannot be a cause. A nonphysical mind cannot exert a force because it has zero inertial mass. Therefore, it cannot be a cause.

All claims that nature has a cause of its existence are false. Energy being conserved means that it can never be created nor destroyed. Nature is composed of energy. Therefore, nature can never be created nor destroyed. Since energy cannot be created, there cannot be a beginning of nature. If everything in nature is physically explained, then nature is explained. The quantity of energy of any particular object in nature always exists, changes forms forever, and participates in the forms of an infinite number of particular objects.

Naturalism (ontological) is the idea that there is only natural existence. The natural is physical, material, space, time, and corporeal. The supernatural is not the natural. The supernatural (i.e. transcendental) is the negation of the natural and is therefore nonphysical (i.e. completely empty), immaterial (i.e. completely empty), space-less (i.e. existing at no location), timeless (i.e. existing at no time), and incorporeal (i.e. bodiless). Nonexistence and nothingness are nonphysical, immaterial, space-less, timeless, and incorporeal. There is no difference between the supernatural and nonexistence and nothingness. The supernatural is equal to nonexistence and nothingness.

Supernaturalism is always false because it asserts that there is supernatural existence. Supernatural and existence are mutually exclusive and exhaustive. A supernatural existence (i.e. nonexistence existence) is a contradiction in terms, like a three-angled square in Euclidean geometry, because the supernatural is equal to nonexistence. It is always true that there is no supernatural existence (i.e. supernatural being). A nonphysical being (i.e. nonphysical existence), is a contradiction. It is known by means of facts and reason alone, with total accuracy and reliability, that there is no supernatural existence.

Naturalism is always true, because naturalism and supernaturalism are mutually exclusive and exhaustive (cover all logical possibilities), and supernaturalism is always false. There is no logical alternative to naturalism being true. Nature is equal to all existence. We do not need to search the universe

to prove that there is no god, devil, or supernatural because there is nothing for which to search. Since the supernatural is equal to nonexistence and nothingness, the supernatural cannot be identified, located, observed, measured, or experienced, and cannot be used to predict, control, explain anything, or be a mechanism by which an effect is caused. Since there is nothing to experience, all supposed supernatural experiences are hallucinations.

For example, scientists, engineers, and technologists exclusively work with and explain with the physical, rather than the nonphysical, because the nonphysical is precisely nothing with which to work or explain. The nonphysical is excluded from all empirical detection because there is exactly nothing to detect. In order to be testable for accuracy and reliability, any scientific hypothesis must be operationally defined in terms of the physical.

Argument Evaluation

The first premise of the Kalam argument, whatever begins to exist has a cause, Craig tries to apply to nature, and thereby formulate a definition of his god. Part of Craig's definition of a god is that his god is nonphysical, immaterial, space-less, timeless, incorporeal, and changeless (Copan & Craig, 2005; Craig, 2008, 2010). This part of his definition of a god is therefore equal to nonexistence and nothingness. Beginning-less and uncaused can describe either nothingness or nature. A changeless cause is a contradiction because a cause is an active production of an effect, even according to Craig's definition of cause. Changeless contradicts both exhibiting personality and exerting power. To the supernatural properties of his god Craig adds that his god is personal and powerful (Copan & Craig, 2005; Craig, 2008, 2010). A personal nothing and a powerful nothing are each contradictions. Some of the terms in Craig's definition of his god are mutually exclusive with other terms. Given Craig's definition of a god, God exists is a contradiction in terms. Therefore, the existence of Craig's god has a probability of exactly zero. The fact that Craig's definition of god is a contradiction invalidates all of his arguments for the existence of his god. A mind is the physical functioning of a physical body. A mind is either physical (something) or nonphysical (nothing). Physical and nonphysical are mutually exclusive and exhaustive alternatives. The minds that we actually observe are physical electromagnetic behavioral patterns, energy states, of a physical brain. The electromagnetic force is mediated by photons, light (Serway, 2005). The electromagnetic behavioral patterns in the brain are the qualia, such as imaginings, sights, sounds, tastes, smells, feelings, etc. Those physical behavioral patterns are our personal identity, a person's self. When those patterns stop in a human brain, the person is considered to be dead, no longer existent. A mind is a

physical, space-time phenomenon. The conservation of energy, as well as the conservation of momentum, means that anything that interacts with the physical is physical. If mind interacts with the physical, then mind is physical.

Craig claims that the creator cannot be an abstract object because such objects have no causal efficacy. The creator must be a supernatural mind (Craig, 2010). A supernatural mind is a supernatural existence and is therefore a contradiction. A supernatural mind cannot exist. A nonphysical, disembodied mind is a contradiction. A contradiction cannot be anything or be the cause of anything, including the existence of nature.

Craig's model of his god cannot precisely, accurately, reliably, or successfully predict events. Craig's definition of his god is self-contradictory. Anything at all follows from a contradiction. This means that given his god, there cannot be any true reason to expect anything to be one way rather than another. In general, supernatural existence being a contradiction means that no supernaturalistic model can be predictive because there can never be a true reason to expect anything to be one way rather than another. Such a model cannot successfully make contact with reality. According to Craig (2014), models of a god that theologians make up cannot be predictively tested. They can only be tested for coherence and how well they explain. Nevertheless, if a model does not successfully predict, then it does not successfully explain anything real because it is not successfully in contact with reality and is totally fictional. This means that no model of a god can successfully explain anything in reality. All models of a god are totally fictional. Since supernatural existence is a contradiction, no model of a god can even be coherent with existence.

Craig wants there to be supernatural causes so he can say that his god caused nature (Copan & Craig, 2005; Craig, 2008, 2010). Yet there is no logical possibility of a supernatural causal mechanism. A supernatural cause is a supernatural existence, and therefore is a contradiction. A nonphysical cause is a contradiction. To say that a supernatural existence caused something is like saying that a four-sided triangle in Euclidian geometry caused something. Bringing supernatural existence into premise one renders it always false and the Kalam argument fallacious. A supernatural existence cannot function as an explanation. A supernatural causal explanation is a contradiction. To causally explain nature with supernatural causes or mechanisms is to causally explain something with a contradiction. Nature has infinite past time. If nature began to exist, then it has a supernatural cause. Nature cannot have a supernatural cause because a supernatural cause is a contradiction. Therefore, nature did not begin to exist. All real properties and causes are physical prop-

erties and causes. Something cannot be caused to come into existence out of complete nonexistence, nothingness. Strict nothingness, nonexistence, has no real properties or causal efficacy because there is precisely nothing to have any properties or causal efficacy. The nonphysical, immaterial, spaceless, timeless, and incorporeal cannot have any real properties or causal efficacy. The supernatural, including Craig's god, cannot have any real properties or causal efficacy.

Craig maintains that there was a first cause in which something was caused to come from strictly nothing, not even space-time, fields, quantum vacuum, etc. As shown above, space-time is a physical thing. Space-time, quantum vacuum, and fields are physical states, and not strictly nothing. Creation, to cause something to come from nothing, is a contradiction. A first cause of nature, which causes something to come from nothing, is a contradiction. A cause is something, not nothing. For something to come from nothing is for something to come from no cause. Therefore, to cause something to come from nothing, to cause something to come from no cause, is a contradiction. There cannot be a creation. There cannot be a creator. This is true even if cause is defined the way Craig defines it, as something which brings about or produces its effects (Craig, 2008). Since a first cause of nature is a contradiction, there is an infinite past physical chain of causes and effects. Nature exists by itself, without assistance, and does everything by itself.

Craig's god could not cause the Big Bang simultaneously with the existence of the Big Bang. Even using Craig's own definition of cause, bring about or produce, implies the cause is prior to the effect. The effect does not exist until after it is brought about or produced. A cause is a triggering event and therefore must precede the effect. The support setting for the cause is not thought of as the cause of an effect. A cause cannot be simultaneous with its effect without being part of the effect rather than being a cause. If nature began to exist, then it is a counter-example to the premise that whatever begins to exist has a cause. Since nature is everything that exists, there is nothing else to be its cause. Nature cannot have a cause even if it began to exist. Craig claims that something cannot come from strictly nothing and that his god caused something to come from strictly nothing, which is a contradiction (Copan & Craig, 2005; Craig, 2008, 2010). If something cannot come from strictly nothing, then there cannot be a creation of nature out of strictly nothing. To cause something to come from strictly nothing is a contradiction because there is nothing for a cause to have an effect upon. This means there cannot be an effect and the aforesaid cause cannot be a cause. A cause can only have an effect upon prior existing material. If the Big Bang is an effect, then the Big Bang could not have occurred without prior existing

material. If the Big Bang has a physical cause, then the Big Bang cannot constitute all of nature. No amount of power can have any effect upon strict nothingness because there is nothing to have an effect upon.

The Big Bang cannot come from Craig's god. Recall that Craig claims that something cannot come from strictly nothing (Copan & Craig, 2005; Craig, 2008, 2010). The supernatural, which includes his god, is strictly nothing. This means that something cannot come from the supernatural, including his god. The Big Bang is something. Therefore, the Big Bang cannot come from the supernatural, including his god.

Nature necessarily exists. I agree that something cannot come from strictly nothing. If something exists rather than nothing, then that something cannot come from nothing. That something therefore never began to exist and was never caused to exist. This means that there is no alternative to that something existing and it has existed infinitely into the past. That something is the physical universe because the nonphysical is nothing. Since there is no alternative to nature existing, it will exist infinitely into the future.

If there is a cause of the Big Bang, then it is a physical cause. Again, something cannot come from nothing. The nonphysical is nothing. Something cannot come from the nonphysical. Something can only come from the physical. The Big Bang can only come from the physical. If something cannot come from nothing and the Big Bang is something, then the Big Bang cannot come from nothing. The Big Bang was not caused to come from nothing.

Craig claims that his god is a person with free will. There cannot be free will (i.e. uncaused) choice, because something cannot come from nothing. A choice caused by nothing is something coming from nothing. By a personal cause, Craig means a personal agent who makes free will choices, thereby causing a contingent reality to come into existence from nothing. The choice comes from nothing and the contingent reality comes from nothing, each of which contradicts something not coming from nothing. Free will cannot exist. Therefore, the personal agent god that Craig describes cannot exist. Free will requires the self to cause itself, which is a contradiction (Nichols, 2008). A god causing its uncaused choice would be a contradiction. If whatever begins to exist has a cause and choices begin to exist, then choices have a cause. If nature began from a free will (i.e. uncaused) choice made by a creator, then nature ultimately has no cause. Ultimately, a creator god cannot causally explain anything. The second premise of the Kalam argument, the universe began to exist, assumes that the contents of the Big Bang constitute the entire universe. That is an unproven assumption, rather than a premise that has been proven to be true. An unproven assumption is not known to be true or false, has no known accuracy or reliability, and therefore cannot sup-

port a conclusion. If there is a cause of the Big Bang, it can only be a physical cause, because the nonphysical is nothing. In that case, nature is larger than the contents of the Big Bang. That physical cause determines all of the constants, ratios, and quantities in the Big Bang.

According to my reading on the subject, it is even questionable that the Big Bang began to exist. There is no use for creation or a creator in the Standard Big Bang Theory. A singularity is an open limit point in a scientific theory where there is division by zero. An open limit point can be approached as closely as one wishes, yet there cannot be an arrival, because division by zero is undefined, which means there is no place at which to arrive. The Big Bang Theory tracks back in time to a singularity. The mathematics means that the Big Bang does not have a beginning, because there is no first existence.

If the Big Bang constitutes the entire universe and the Big Bang indeed began to exist, then the universe cannot have a real cause or real causal explanation. All of space-time cannot have a cause, because all causes are within space-time. Even in a universe in which there is a finite amount of time there is no beginning in time, because there is no existence before it, even though there is a first moment of time. This means no cause of that universe is required.

Whether there is a cause of the Big Bang, and what it might be, is in question. Physicists are looking for a physical causal explanation for the Big Bang because the nonphysical is nothing and a nonphysical cause is a contradiction. The physical and the nonphysical are mutually exclusive and exhaustive. The physical universe is all of reality because the nonphysical is nothing. Physicalism, the idea that the physical is equal to the real, is always true.

A cause of nature (i.e. everything real) is a contradiction because it would be necessary for such a cause to have real existence outside of everything that is real. Nature cannot have a cause. There is no real alternative to nature existing.

Physicists have turned to quantum mechanics to try to explain how the Big Bang could happen given prior quantum conditions. There are several hypotheses. At this point, scientists are just not in an evidentiary position to know what happened.

The conclusion of Craig's Kalam argument, the universe has a cause, assumes that there is something other than nature, namely a supernatural existence, which caused nature (Copan & Craig, 2005; Craig, 2008, 2010). Nevertheless, nature is equivalent to reality. Nature causing itself to exist is a contradiction. Nature cannot cause itself, because to do so it would be

necessary for nature to exist before it existed. There is no alternative to nature existing. To transcend nature is a contradiction. Nonphysical cause, spaceless cause, timeless cause, supernatural cause, and transcendental cause are contradictions in terms. A contradiction, a supernatural existence, cannot be a cause of nature.

Thermodynamics

The laws of thermodynamics are some of the most accurate and reliable laws in physics. Craig tries to use the second law of thermodynamics to show that the Big Bang deflates back to a beginning if time is reversed. He does not account for the first law of thermodynamics (Craig, 2010). We know that nature has already existed forever because of the first law of thermodynamics. The first law of thermodynamics is the conservation of energy, which means that although energy is always changing form, the total quantity of energy in nature is always constant (Chaisson & McMillan, 2004; Cutnell & Johnson, 2004; Serway & Beichner, 2000).

Since energy can never be created nor destroyed, the same total quantity of energy has existed infinitely into the past and will exist infinitely into the future. It has no beginning, does not need to be sustained in existence, and it has no end. All subatomic particles oscillate (Serway, Moses, & Moyer, 2005). Energy is always in action. That is why motion exists and why something happens rather than nothing.

Since energy has no beginning, there is no cause of its existence. The properties of energy explain why there is something rather than nothing at all and why there continues to be something rather than nothing at all. Nature is composed of energy. Therefore, nature has all of the above properties of energy.

A physical pattern indicates that there is a substructure of physical order. Since naturalism is always true, there can only be physicalistic reasons for why nature has the constants, ratios, and quantities that it does. Life is a part of nature and is adjusted to the rest of nature by natural selection. The rest of nature is not adjusted to life. Life is a physical phenomenon.

The second law of thermodynamics states that entropy (energy disorganization) always increases or remains constant if there is no energy input into or output from an isolated system. The total entropy of the universe does not change when a reversible process occurs and does increase when an irreversible process occurs (Cutnell & Johnson, 2004). The second law of thermodynamics depends upon the first law of thermodynamics being true.

Entropy cannot be constant at its maximum or we would not exist, because energy would be too dispersed for stars and planets to exist. Given that past time is infinite (because of the first law of thermodynamics and

creation being a contradiction), if nature is finite in energy, then by now maximum entropy would have been reached and we would not exist, because energy would be too dissipated. Maximum entropy has not been reached and we do exist. Therefore, nature is not finite in energy. The laws of thermodynamics, in combination with our existence, necessitate that nature be infinite in energy.

The entire Big Bang is only an infinitesimal dot in an infinite universe. The total energy in nature is equal to the absolute value of the positive (kinetic) energy plus the absolute value of the negative (potential) energy. The total quantity of energy in the universe is infinite and constant, similar to the quantity of integers.

If time is viewed in reverse, nature does not ultimately deflate back to a beginning. The total energy of nature is constant because of the first law of thermodynamics (Serway & Beichner, 2000). Given infinite time, because the total energy is constant, if the average entropy of nature or the average temperature of nature increased or decreased, then we would not exist, because nature would be too cold or too hot. The average temperature of nature must be constant and the average entropy of nature must be constant below its maximum level or we would not exist. This means there is no overall inflation or deflation of nature.

CONCLUSION

Craig's Kalam cosmological argument is indefensible. Creation is a contradiction. Supernatural existence and supernatural cause are each contradictions. Craig contradicts himself in that he asserts that something cannot come from nothing and that his god caused something to come from nothing. In defining his god, Craig fails to refer to anything that can be real, because his definition is a contradiction in terms. It is totally accurate and totally reliable that there is no real alternative to nature existing; nature exists by itself and does everything on its own; nature is infinitely old and will exist infinitely into the future; nature is infinite in energy; and nature is equal to reality.

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