

THE PHILOSOPHY OF SUPERDETERMINISM: HOW A NEW PHYSICS PROOF SUPPORTS THE EXISTENCE OF GOD AND HUMAN IMMORTALITY

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In 2020, Swedish theoretical physicist, Dr. Johan Hansson published a physics proof that our universe is superdeterministic meaning a predetermined static block universe without cause and effect in physics. This physics proof that cause and effect in physics are not real provides a new avenue of insight useful in the philosophy of religion. For example, superdeterminism provides circumstantial scientific evidence of the existence of God and our own immortality in our static block universe. The implications of superdeterminism also include disproof of existentialism, nihilism, deism, pantheism, transphysical beings, pagan gods, and the Copenhagen and Many Worlds Interpretations of quantum mechanics. The philosophy of superdeterminism also conceives of the soul as an information packet appearing in spacetime rather than a transphysical being. However, the philosophy of superdeterminism also supports the truth of Christianity and the resurrection of the body and brain after death in special other universes we call Heaven and Hell. But, the philosophy of superdeterminism disproves other religions besides the Abrahamic religions of Judaism, Christianity and Islam.

We as human beings wonder about the true nature of the universe and our relationship to it. Does the universe need a Creator God? Superdeterminism is a physics theory, which can assist in resolving many difficult questions like this in the philosophy of religion. The recently proven version of the superdeterminism theory says that the universe is a predetermined static block universe without actual cause and effect in physics.¹ The

¹ Dr. Hansson wrote that “[e]verything is predetermined, including the experimenters (non) free will, the ‘random’ orientation of the spin-analyzers at either end, and anything else you can think of. Each measurement does not create but merely uncovers what already is embedded in space-time. All events leading up to, and including, the ‘act of measurement’ itself are already there. . . . Bell’s theorem and its many experimental tests thus are proof that nature at its fundamental level is superdeterministic – not random. A ‘cause’ cannot alter the ‘effect.’ The events in global space-time are predetermined and fixed, much like pebbles cast into a concrete block. . . . What an

philosophy of superdeterminism has a lot to say about the existence of God, free will, miracles, quantum randomness, the afterlife, pantheism, deism, existentialism and the problem of evil.

The original version of superdeterminism proposed by physicist, Dr. John Stewart Bell is simply a loophole in Bell's Theorem based on the assumption of freedom-of-choice or statistical independence.² In 2020, however, Swedish theoretical physicist, Dr. Johan Hansson published a physics proof of his own unique version of superdeterminism that relies on a little known fourth loophole, namely the assumption in Bell's Theorem that cause and effect in physics are real.³ Dr. Hansson proved, using Einstein's Theory of Special Relativity and what is

experimenter seemingly 'chooses' to do at either end A or B is the only thing she can do, and cannot 'cause' either the event at her own position or the event at the other end. All events in the global space-time 'block' we call the universe (past, present and future), observed or not, are superdetermined and unalterable." Hansson, Johan. "Bell's theorem and its tests: Proof that nature is superdeterministic – Not random." *Physics Essays* Vol. 33, No. 2, at 217 (2020).

² Physicist, Dr. John Stewart Bell invented his famous theorem that mathematically proves that if local realism is true, then the correlations predicted by quantum mechanics for entangled particles cannot exist. Quantum entanglement is where at least two particles share a single quantum state, such that measuring one particle instantly affects the other particle, even if they are separated by vast distances. However, there are three common loopholes to Bell's Inequalities, namely locality, fair-sampling, and freedom-of-choice (statistical independence). Dr. Bell coined the term "superdeterminism" to refer to the freedom-of-choice loophole that would defeat his Inequalities. This loophole argues that if the experimenter's choices about measuring entangled particles are not free or statistically independent, but rather predetermined, then the violation of local realism observed in Bell-type experiments might be an illusion.

³ Dr. Hansson's proof used a fourth loophole, namely the assumption in Bell's Theorem that cause and effect in physics are real. In other words, the correlations seen in entangled particles even over vast distances may be predetermined by a static block universe in the local space-time areas of the entangled particle measurements rather than caused by their measurement. Dr. Hansson wrote of this fourth assumption: "[i]mplicitly assumed in the derivation of Bell's theorem is that the spins at A and B can be freely measured in any directions whatsoever – and in so doing, according to quantum mechanics, *creates* this spin direction for the particle at the other end, where the

experimentally known to be true about spin measurement correlations observed in entangled particles,⁴ that the universe is a predetermined static block universe without cause and effect in physics.⁵ While Einstein believed that our experience of time in our static block universe was an illusion,⁶ Dr. Hansson added his proof that our experience of cause and effect is also an illusion of our block universe.⁷

An Einsteinian block universe is defined by three dimensions of space and one dimension of time called spacetime. Similar to how we have length, width and height, time is considered a fourth dimension. There is no privileged point in time within the block universe. All moments of time are equally real. So, the idea of the block universe is that we live in our own present three dimensional slice of a four dimensional universe. Past, present, and future all exist simultaneously within the block, but we only perceive the present moment. Our experience of time is an illusion caused by our appearances in static slices or hyperplanes⁸ of our block universe through the dimension of

detector may, randomly, have been given a different orientation than the first.” See Hansson, Johan. “Bell’s theorem and its tests: Proof that nature is superdeterministic – Not random.” *Physics Essays* Vol. 33, No. 2 (2020), at 217 °.

⁴ Aspect, A. et al. “Experimental Realization of Einstein-Podolsky-Rosen-Bohm *Gedankenexperiment*: A New Violation of Bell’s Inequalities” *Physical Review Letters* Vol. 49, No. 2 (1982).

⁵ The key feature of entangled particles is that when you measure a property of one particle, like up or down spin direction, the other particle instantly collapses into the opposite spin state regardless of the distance that separates the entangled particles.

⁶ In a letter of condolence written to the sister of a deceased friend, Michele Besso, Albert Einstein wrote a month before his own death in 1955 that, “[n]ow he has departed from this strange world a little ahead of me. That signifies nothing. For those of us who believe in physics, the distinction between past, present and future is only a stubbornly persistent illusion.”

⁷ Our experience of cause and effect would have to be an illusion, because Dr. Hansson proved that cause and effect in physics are not real, which leaves only illusion as an explanation for our experience of cause and effect in time.

⁸ In any number of dimensions, a hyperplane is a subspace with one dimension less than the whole space. Spacetime is considered a 4-dimensional continuum, with 3 spatial dimensions and 1 time dimension. A “slice” would be a 3-dimensional space extracted from the 4-dimensional spacetime. Therefore, a hyperplane can be a

time. The block universe is a picture of change and not a changing picture. An analogy would be a cosmic flipbook in which you appear at all the moments of your life on different slices of the block universe in the static dimension of time. Your life is like a stacking of all your appearances in static moments of three dimensional space from your birth until your death spread out in the fourth dimension of time. However, our block universe is also superdeterministic, because everything that happens in the universe must be predetermined due to the lack of cause and effect in physics. Indeed, because the future cannot be caused to exist, then the future must already exist in our block universe. We are all immortals existing within our static block universe, and our universe is powerless to change itself without cause and effect in physics.

Dr. Hansson proved the simple truth that our universe is incapable of actual cause and effect in physics. However, this simple truth has profound consequences for the philosophy of religion. Causation itself is an abstract concept, which has never been proven to be real. Cause and effect have never been caught in the act of an intimate connection by photograph or otherwise. Dr. Hansson has shown that cause and effect are not real by applying Einstein's Theory of Special Relativity, specifically the relativity of simultaneity,⁹ to the opposite spin correlations observed in quantum entangled particle pairs. Assume a simple spin measurement¹⁰ setup with a lab table and two

fitting way to describe this "slice," because it captures the idea of a lower-dimensional space with the higher-dimensional spacetime. One can definitely use "hyperplane" to refer to a slice of spacetime, especially in Special Relativity which deals with flat spacetime.

⁹ Albert Einstein published his Theory of Special Relativity in 1905. Special Relativity has been experimentally confirmed to be true many times since then and is one of the most successful physics theories of all time. The relativity of simultaneity arises out of Special Relativity and states that whether two spatially separated events happen at the same time is not absolute, but depends on the observer's relative inertial frame of reference.

¹⁰ Spin refers to an intrinsic property of a particle, like its mass or charge. It is a form of angular momentum, but unlike a spinning ball, it does not necessarily correspond to a physical rotation. Spin comes in quantized values, meaning it can only have specific values, not any value in between. We measure its projection onto a chosen axis. This axis is like an imaginary line through the particle. The particle's spin can only be either "up" or "down" relative to this chosen axis. However, unlike massive particles, like electrons, photons are massless and travel at the speed of light. This makes it impossible to define a single axis of rotation for a photon. Therefore, we do not

spin measurement devices on either end of the table. Now, add two entangled particles A and B and measure the spin of each particle simultaneously one on either end of the table. Under Einstein's Theory of Special Relativity, specifically the relativity of simultaneity, two observers traveling in opposite directions near the speed of light parallel to the lab table would observe a different sequence of measurement events. Observer 1 sees particle A measured before particle B. But, Observer 2 sees particle B measured before particle A. The different sequences of measurement events cause a paradox under orthodox quantum mechanics.

From experimental observations, we know that that spin measurements of entangled particles A and B must correlate as exact opposites 100 percent of the time. But, we also know from experiments in quantum mechanics that the spin measurement result is purely random with a 50-50 chance of being up or down.¹¹ The paradox is that observers in different relative frames of reference will see a different entangled particle measured first, which makes it impossible for the measurement results seen by each observer to match 100 percent of time. Where either entangled particle is observed to be measured first, then its spin measurement must be a purely random 50-50 chance. But, the first particle measured from the perspective of Observer 1 is always the second particle measured from the perspective of Observer 2. But, the spin measurement of the second particle is determined by the measurement of the first particle measured always being the exact opposite, and therefore can never be a 50-50 random chance. Consequently, the spin measurements of the entangled particles A and B would always be incoherent being both determined and purely random. And because Special Relativity denies any preferential frame of reference, then one cannot simply favor the first measurement of either particle A or B as controlling of the combined spin measurement results. The paradox is that entangled particle pairs are known to correlate with exact

measure the spin of a photon along an arbitrary axis, like electrons. Instead, the concept of polarization is used to describe a photon's spin state. Light polarization refers to the orientation of the electric field in the light wave.

¹⁰ The 50/50 probability for spin up or down in individual measurements for a single particle is a well-established principle in quantum mechanics.

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opposite spin measurements, but that should be impossible under Special Relativity if the collapse of the wave function results in a purely random spin measurement result for the first entangled particle measured.

Dr. Hansson resolves the paradox by concluding that the only solution is that the spin measurement results must be predetermined and that neither measurements of particles A or B actually cause those spin measurement results.¹² He proved that cause and effect in physics is not real in the case of entangled particle pairs.¹³ Because the measurement of the first entangled particle cannot actually cause the correlated measurement result of the second particle measured without violating Special Relativity, then the measurement of the first particle cannot actually cause anything to happen to the entangled pair. Therefore, there is no collapse of the purported wave function supposedly caused by the measurement of the first particle. There is simply no causation going on at all that can account for the exact opposite spin correlations observed in entangled particle pairs. And, if cause and effect are not

¹² Dr. Hansson wrote that “[p]ast” and ‘future,’ ‘cause,’ and ‘effect’ have become scrambled and ill-defined as a consequence of Bell’s theorem and its tests. There is no other possibility than that the outcomes at A and B both are predetermined. Hence, the events in global space-time are fixed once and for all – despite the superficially random assertion of quantum mechanics about what happens during measurement/observation.” Hansson, Johan. “Bell’s theorem and its tests: Proof that nature is superdeterministic – Not random.” *Physics Essays* Vol. 33, No. 2, at 217 (2020).

¹³ Dr. Hansson wrote that “[e]verything is predetermined, including the experimenters (non) free will, the ‘random’ orientation of the spin-analyzers at either end, and anything else you can think of. Each measurement does not create but merely uncovers what already is embedded in space-time. All events leading up to, and including, the ‘act of measurement’ itself are already there. . . . Bell’s theorem and its many experimental tests thus are proof that nature at its fundamental level is superdeterministic – not random. A ‘cause’ cannot alter the ‘effect.’ The events in global space-time are predetermined and fixed, much like pebbles cast into a concrete block. . . . What an experimenter seemingly ‘chooses’ to do at either end A or B is the only thing she can do, and cannot ‘cause’ either the event at her own position or the event at the other end. All events in the global space-time ‘block’ we call the universe (past, present and future), observed or not, are superdetermined and unalterable.” Hansson, Johan. “Bell’s theorem and its tests: Proof that nature is superdeterministic – Not random.” *Physics Essays* Vol. 33, No. 2, at 217 (2020).

real at the quantum level, it is dubious to believe that cause and effect would be real at the macro level or anywhere else in the universe via reductionism. Moreover, the proof that cause and effect in physics are not real fits quite neatly with Einstein's belief that our experience of time is an illusion of our static block universe. Because cause and effect in physics are not real, then our understanding of time as necessary for movement and change in our universe is incorrect. Time is a real dimension of spacetime, but not a force that acts on nature. Consequently, the universe consists of timeless hyperplanes of spacetime throughout the dimension of time in our block universe.

Hyperplanes of spacetime must be timeless physical realities, because the universe cannot cause them to exist in time. Thus, Dr. Hansson proved the existence of timeless physical reality. Consequently, one can imagine the existence or non-existence of such timeless physical reality, which implies an on/off switch for timeless physical reality or the creation of timeless physical reality outside of time or non-temporally/atemporally.¹⁴ God, being the cause of the existence of timeless hyperplanes of spacetime, thus created our timeless block universe, which is exactly the sort of timeless creation one would expect from a timeless God. Thus, there is no need to relate God to time, because both God and our block universe are timeless in light of the fact that our experience of time is only an illusion of our static block universe.

The scientific circumstantial evidence for the non-temporal causation of timeless physical reality is two-fold. First, there is the zero-energy universe theory as evidenced by the flatness of spacetime, which posits that the positive and negative (gravity) energies of the universe perfectly cancel each other out.¹⁵ This means that our universe must have been created from nothing non-temporally outside of the laws of physics given the absence of actual cause and effect in physics, which fits perfectly with the idea of God creating our universe out of nothing or

¹⁴ Because cause and effect in physics are not real, then timeless hyperplanes of spacetime cannot be caused to exist in time or under the laws of physics. The creation or annihilation of timeless hyperplanes of spacetime must occur outside of time and outside the laws of physics. The term used to describe this type of creation or annihilation is non-temporal meaning causation outside of time. Another term that can be used to denote the same thing is atemporal causation meaning causation without relation to time.

¹⁵ Berman, Samuel Marcelo. "On the Zero-Energy Universe." *International Journal of Theoretical Physics* 48, 3278-3286 (Aug. 25, 2009).

ex nihilo.¹⁶ Second, because we only have scientific evidence that our universe exists, then such evidence implies that our universe must have been created in order to account for the absence of a seemingly infinite number of other possible universes that could exist but apparently do not exist.

Because our universe is not capable of actual cause and effect in physics, then a God is necessary to create our universe outside of time. However, in order to create the advanced technologies observed in our universe, then God would have to know of and understand those advanced technologies in order to predetermine their existence in our block universe. Indeed, God would have to be supremely intelligent in order to predetermine the existence of the most advanced technologies and creators of those technologies that ever appear in our universe. Moreover, no mechanism made of parts can be responsible for the creation of those advanced technologies, because cause and effect are not real to allow for those mechanisms to actually create those advanced technologies. Mechanisms are merely illusory appearances of the cause of things, but not the actual cause of things given the absence of cause and effect in physics.

Moreover, because our block universe does not have the actual power to cause anything, then the universe could not have created itself and no purported god who appears in the universe would have any actual power to create a universe.¹⁷ Indeed, the laws of physics also could not cause the existence of the universe in the absence of actual cause and effect in physics. The laws of physics are merely a mathematical description of the behavior of the universe as opposed to an actual ontologically real causal force of nature. Because the laws of physics cannot actually cause anything, then there is no reason to believe in the truth of the Copenhagen interpretation of quantum

¹⁶ The Catholic Church teaches that “[i]n the act of creation, God calls every being from nothingness into existence.” CCC 2566.

¹⁷ The fact that nothing that appears in the universe can have the actual power to create the universe falsifies many proposed creators, including: the universe itself, alien superbeings, artificial intelligence, universal consciousness, an evolved collective human consciousness, any gods that appear in bodily form, higher dimensional beings, and causal or retro-causal natural forces. The appearance of Jesus on Earth is considered an incarnation of God or God made flesh, which is a special circumstance involving the emptied appearance of God on Earth without His power to create universes.

mechanics.¹⁸ Because a collapsing wave function cannot actually cause anything, then there is no good reason to believe it is responsible for the purely random measurement results sometimes observed at the quantum level. Rather, the purely random measurements sometime observed at the quantum level are predetermined by our static block universe and simply uncovered by the experiment. Because the purported superposition of possible states under quantum mechanics is not real, then there is also no good reason to believe that all those possible states must be accounted for by a Many Worlds Interpretation of quantum mechanics.¹⁹

Because the randomness sometimes observed at the quantum level is not actually caused by anything in physics, then such randomness must be predetermined. When God created our predetermined static block universe outside of time, God also created a predetermined appearance of randomness at the quantum level. However, because God created the whole block universe and predetermined it according to His plan, then pure randomness observed at the quantum level is merely a predetermined aspect of that plan. Because cause and effect in physics is not real, then the universe is not the result of a purely random quantum fluctuation caused by a force of nature.²⁰

¹⁸ The Copenhagen Interpretation of quantum mechanics, named for physicist and Copenhagen resident, Niels Bohr, claims that a quantum particle does not have a definite state (like position or momentum) until it has been measured. Rather, it exists in a blend of all possible states at once called a superposition. A mathematical wave function is used to describe the probabilities of finding the particle in a specific state. The act of measuring a quantum system forces it to “collapse” from its superposition into a single definite state. This collapse is irreversible meaning we cannot know for sure what state it was in before the measurement. Some argue that deterministic physics is incompatible with quantum mechanics due to the irreversibility of wave function collapse. However, Dr. Hansson’s new version of superdeterminism avoids this objection because his version does not rely on causal hidden variables or cause and effect in physics. Rather, deterministic and indeterministic physics are merely behaviors that appear in our static block universe without the need of any sort of causal force of nature.

¹⁹ The Many-Worlds Interpretation (MWI) suggests that the quantum wavefunction, which describes the probabilities of a system being in various states, is real and does not actually collapse during measurement. Instead, the universe itself splits into multiple realities (worlds) whenever a quantum measurement occurs.

²⁰ Tyron, Edward P. “Is the Universe a Vacuum Fluctuation?” *Nature* Vol. 246, pp. 396-397 (1973).

Rather, the universe is predetermined and non-temporally caused to exist by God with random features already known to God. God truly does not play dice with the universe.²¹

Because the laws of physics cannot actually cause the universe to exist, then God cannot leave those laws to run the universe themselves. Contrary to deism²², God predetermined everything that happens in the universe down to the smallest detail. God does not have to intervene in the laws of physics in order to perform miracles or involve Himself in our lives, because God has already predetermined every miracle and could not be anymore involved in the details of our lives.²³ The laws of physics must accommodate everything that is predetermined to happen in our universe, and so there is no need for God to ever intervene in the laws of physics for miracles to happen. The miraculous is already baked into the predetermined plan of our static block universe. Because quantum fluctuations allow for extremely unlikely events to occur in the universe, if one is willing to wait long enough for them to happen,²⁴ then even such extremely unlikely events as miracles are possible under our laws of physics. And because an extremely unlikely quantum fluctuation can occur at any given time, then God can predetermine miracles to occur without an astronomically long wait.

²¹ In December of 1926, Albert Einstein wrote to Max Born that “[t]he theory produces a good deal but hardly brings us closer to the secret of the Old One. I am at all events convinced that He does not play dice.” Einstein was reacting to Born’s probabilistic interpretation of quantum mechanics and expressing a deterministic view of the world.

²² Deism says that although God created the universe, He does not directly intervene in its day-to-day operations. This God is often seen as a “clockmaker” who set the universe in motion according to natural laws and then stepped back.

²³ Spiritual experiences must also be predetermined events in our lives, because our conscious experience of those spiritual experiences must be an aspect of the predetermined universe because our consciousness is an aspect of our predetermined universe.

²⁴ Quantum mechanics is a probabilistic theory in which the math allows for improbable events, such as quantum fluctuations with astronomically small chances of occurring.

Many today believe that we come from nothing and go to nothing. However, under Dr. Hansson's version of superdeterminism, nothing could be further from the truth. We actually exist as immortals in our static block universe, because there does not appear to be any reason why God would annihilate our universe after creating it.²⁵ Death itself is grossly misconceived as a final end of our existence in the universe. We always exist in our block universe, because the past, present and future always exist in our block universe. Indeed, we have already died somewhere in the future of the dimension of time. Death is not the end of our existence in our universe, but merely the tail-end of the appearance of our life in the static hyperplanes of spacetime in the dimension of time. And because cause and effect are not real, then the laws of physics cannot create our universe from nothing. So, we owe our existence to God who created our universe *ex nihilo*.

The existentialist²⁶ claim evaporates in light of superdeterminism. Firstly, because the universe is predetermined and unchangeable, then we cannot have free will on Earth. We are not free to decide on our own what it means to be human, because God has already predetermined the entire history of humanity in our block universe, giving it meaning as part of God's plan. Secondly, God gives us objective meaning as part of God's plan and we are not free to choose any other meaning.²⁷ Although free will on Earth is not real, one can theorize that God would predetermine our universe to exhibit what God knows through omniscience that our freely willed behaviors

²⁵ God's decision to annihilate a universe after creating it would imply a mistake with the original creation, but an omniscient God knowing everything is incapable of making mistakes and therefore should not annihilate our universe.

²⁶ Existentialism is a school of thought in philosophy that emphasizes the individual's freedom and responsibility in creating meaning in their own life. Philosopher, Jean-Paul Sartre claimed that existence preceded essence meaning that we exist first, and then we freely choose who we want to be and how we want to live. Sartre, Jean-Paul. "*Existentialism is a Humanism*" World Publishing Company (1956).

²⁷ Only that which created something can logically give it meaning. Because God created our predetermined universe, then your appearance in God's predetermined plan is your meaning given to you by your Creator. It may not be clear to us how our lives fit into God's overall plan, but we may still search for a clear understanding of that meaning. Of course, the older one gets with the benefit of hindsight, the role we play in God's plan may become more apparent.

would be.²⁸ I call this theory “cinematism,” which is similar to Molinism²⁹, except as applied to a predetermined static block universe without real cause and effect in physics. Cinematism is also a solution to the Free Will Paradox, because it allows for God knowing our behavior on Earth before we act without depriving us of our freely willed behavior known to God and exhibited by our predetermined static block universe. Because God is a divinely simple Being without parts, then God is capable of knowledge outside the strict determinism of mechanisms run on parts, such as God’s omniscience of our freely willed behaviors.

Because our universe must be predetermined for lack of any actual cause of the future we experience, then our body movements, being a physical part of our universe, must also be predetermined. For example, if you consciously decide to move your arm, then your subsequent arm movement must be predetermined as a physical part of the universe. But, in order for your arm movement to be predetermined, then your conscious thought to move your arm must also be predetermined. Consequently, conscious thought must be a predetermined aspect of the physical universe. And the only physical part of the body that might be responsible for that thought is the brain. So, quite clearly, the brain is the cause of human consciousness. If you define the soul as that which gives life to or animates the body, then the soul must be an information packet appearing in the static hyperplanes of our block universe encompassing you. All appearances on hyperplanes of spacetime are information, including your body and

²⁸ God being omniscient must have knowledge of all our freely willed decisions or behaviors in all possible situations and all possible universes without the need to create any of those situations or universes in order to observe what we would actually decide or do. Our predetermined static block universe is a physical exhibition of God’s omniscience of our universe and our behaviors in our particular universe. Because God is divinely simple without parts, God’s omniscience is not controlled by deterministic mechanisms composed of parts allowing for God’s knowledge of our freely willed decisions not subject to any laws of physics.

²⁹ Molinism is a theological theory developed in the 16th century by Luis de Molina, a Spanish Jesuit priest. It attempts to reconcile two seemingly contradictory ideas, namely the divine sovereignty of God who has complete control and knowledge of everything with human freedom to make their own choices. Molinism accomplishes this through the concept of middle knowledge, where God does not directly see the future choices of human beings, but God can know how people would freely choose in various circumstances without influencing their choices. With middle knowledge, God can prepare circumstances according to how God knows people would freely choose.

brain. The information appearing on the hyperplanes of spacetime encompassing your body and brain from your conception to death constitutes an information packet appearing in the dimension of time defining your entire existence in our universe. An immaterial soul would be superfluous and frustrated in any attempt to change a predetermined future. Consequently, Dr. Hansson's version of superdeterminism clearly favors a physical understanding of the soul as opposed to a transphysical understanding of the soul.

The lack of a transphysical soul would mean that Christians have no choice but to believe in bodily resurrection only. In other words, God would recreate our information packets in a special other block universe, such as Heaven or Hell. Bodily resurrection is in line with the Gospels, where Jesus, after being resurrected from the dead, denied being a ghost.³⁰ However, the disproof of the transphysical soul by superdeterminism is devastating for Buddhist and Hindu beliefs in reincarnation, karma and the transmigratory being.³¹ Indeed, Buddha who believed that the universe was a state of impermanent emptiness is shown to be wrong by superdeterminism. The universe is anything but an impermanent emptiness, but rather a likely permanent whole block universe where the past, present and future all exist at once.

Superdeterminism also helps to solve the Problem of Evil. There would be no evil affecting human beings on Earth, if human beings did not exist. However, human beings exist because evolutionary processes brought life and human beings into existence. God can be excused for allowing the existence of evil, because God had no other choice but to use evolutionary processes to create life. And because the existence of life is good, then the existence

³⁰ “While they were still speaking about this, he stood in their midst and said to them, ‘Peace be with you.’ But they were startled and terrified and thought that they were seeing a ghost. Then he said to them, ‘Why are you troubled? And why do questions arise in your hearts? Look at my hands and my feet, that it is I myself. Touch me and see, because a ghost does not have flesh and bones as you can see I have.’ And as he said this, he showed them his hands and his feet. While they were still incredulous for joy and were amazed, he asked them, ‘Have you anything here to eat?’ They gave him a piece of baked fish; he took it and ate it in front of them.” Luke 24:36-43.

³¹ Reincarnation, also known as rebirth or transmigration, is the belief that a non-physical essence of a living being starts a new life in a different physical body after biological death. Karma proposes that our actions, both good and bad, have consequences that come back to us in the future, including in a subsequent reincarnation.

of evil is necessary for that good to be accomplished. Because evolution and abiogenesis are likely true, then God uses the laws of physics to bring about the existence of life in our universe. However, God, the cosmic engineer, possesses an uncaused power to create block realities, which includes certain limitations in creating block realities using deterministic and sometimes indeterminate laws of physics. These limitations force God to only create life through laws of physics and evolutionary processes, which unfortunately for the sake that human beings exist give rise to the evil in human beings on Earth and the occurrence of natural evil due to the presence of human beings in the zone of naturally occurring dangers.³²

Superdeterminism also allows one to infer that God endorsed Christianity as His religion on Earth. It is reasonable to infer that God would predetermine a religion about Himself, so that we who have the capacity to know of His existence would come to understand His will. The predominant religion with the most followers worldwide is Christianity. So, it is also reasonable to infer that God has predetermined the predominant and hence true religion about Himself to be Christianity. Consequently, one can infer that Christianity being God's endorsed religion must be true, because God has no reason to lie about Himself. There are few religions that are specifically about God, but the largest in terms of numbers worldwide is Christianity with 2.3 billion followers.³³ Islam runs a close second with 1.8 billion followers,³⁴ but Islam also recognizes Jesus as its second most important prophet³⁵ which can be used to explain why God allows Islam to gain such a bountiful number of followers. Buddhism and Hinduism are not about God, so they would not be religions endorsed by God about Himself.³⁶ Moreover, both Buddhism and Hinduism are proven to be false religions by superdeterminism.

³² Natural evil refers to the suffering and pain caused by natural phenomena rather than human actions, such as earthquakes, tsunamis, hurricanes, floods, and other natural disasters.

³³ The Changing Global Religious Landscape. The Pew Research Center (April 5, 2017).

³⁴ The Changing Global Religious Landscape. The Pew Research Center (April 5, 2017).

³⁵ Jesus is the most mentioned person in the Quran, if you count direct and indirect mentions.

³⁶ Buddhism does not claim the existence of a supreme creator God. In Hinduism, Brahman is a pantheistic supreme deity meaning everything, including the universe, is God. Because the universe cannot have any actual power to

The critics of superdeterminism focus solely on the original version of superdeterminism and not Dr. Hansson's new version. The distinguishing feature of Dr. Hansson's version of superdeterminism is the absence of actual cause and effect in physics. In contrast, the original version of superdeterminism posits hidden variables stretching back to the initial conditions of the universe at the Big Bang, which cause through a chain of events in time the uncanny correlations observed in entangled particles despite even a vast distance between the entangled particles upon spin measurement. Dr. Hansson's new version of superdeterminism does not rely on hidden variables causing the entangled particle correlations, but rather says that the correlations simply exist *in situ* as part of our predetermined static block universe. Our static block universe simply exhibits predetermined behavior consistent with the laws of physics, but not caused by the laws of physics or anything else within the universe for that matter. The idea of scientific naturalism or that science must be able to explain the cause of all things rests fundamentally on the false premise that cause and effect in physics are real. The universe certainly exhibits a formalized behavior, but that behavior is not actually the result of cause and effect in time. One could propose a static reason for the organization of the universe, such as a block universe organized on the basis of some shared common information among abutting and intersecting hyperplanes of spacetime resulting in mutual logical co-existence. In any event, because our universe exhibits net zero energy as evidenced by the flatness of spacetime, then the static organization of the behavior of the universe must derive from an aspect of God's expansion of nothingness in order to create our universe.

The absence of actual cause and effect in physics is what allows Dr. Hansson's new version of superdeterminism to escape the criticisms leveled at the original version of superdeterminism. Firstly, there is no need for any extenuated causal chain of events stretching back to the Big Bang, because the correlations observed in entangled particles are not actually caused in time. Secondly, because Dr. Hansson's new version of superdeterminism does not rely on cause and effect in physics, then it does not require physics that strictly determines purely random quantum events. Indeed, Dr. Hansson uses Special Relativity in his proof, which does not rely on time reversal symmetry. Thirdly, because Dr. Hansson's version of superdeterminism is not a hidden

create itself due to the fact that cause and effect in physics are not real, then Brahman cannot be a supreme God due to his lacking of actual power to create the universe.

variable model, then the Kochen-Specker Theorem does not apply.³⁷ Fourthly, the Leggett-Garg Inequality³⁸ is not a problem for Dr. Hansson's version of superdeterminism, because his version of superdeterminism does not require classical macrorealism at the quantum level to support hidden variables causing the correlations observed in quantum entanglement.

A fifth criticism is that there is a violation of the Lorentz invariance of the relation of temporal precedence, i.e. causes always preceding their effects temporally. A sixth criticism is that there is a violation of the Lorentz invariance of the Born rule.³⁹ Because the collapse of the wave function is not simultaneous in different regions of

³⁷ The Kochen-Specker theorem is a foundational result in quantum mechanics, which says that the unmeasured quantum realm cannot have definite properties. More precisely, the theorem says that it is impossible to assign values to all quantum properties, like position or momentum, in a way that is consistent with how those properties are measured. This challenges the idea of a hidden variable theory, which tries to explain quantum mechanics using classical ideas. The theorem hinges on the concept of contextuality meaning that how you measure something at the quantum level can affect what you find. This suggests that the idea of a completely objective reality, independent of the observer, breaks down at the quantum level.

³⁸ The Leggett-Garg Inequality is a mathematical test used in quantum mechanics, which specifically challenges the ideas of macroscopic realism and noninvasive measurability. Macroscopic realism says that objects have definite properties at all times even when they are not being measured. The assumption of noninvasive measurability says that we can measure a property of a macroscopic object without disturbing its state or how it evolves in time. The Leggett-Garg Inequality sets a limit on how certain measurements on a single system can be correlated based on the assumptions of macrorealism and noninvasive measurability. Quantum mechanics predicts violations of this inequality, which means that the quantum world cannot be fully explained by classical ideas, such as that microscopic systems have definite values at all times or that the act of measuring a quantum state cannot intrinsically influence its state.

³⁹ The Born rule is a fundamental principle in quantum mechanics that dictates the probability of a measurement outcome. It essentially tells you how likely you are to get a specific result when measuring a quantum system. The Born rule connects the probability of a measurement result to the wavefunction of the quantum system. The wavefunction mathematically describes the state of the system. The probability is proportional to the absolute

space in the thought experiment set forth in Dr. Hansson's proof, the integral of the modulus squared of the wave function defined at a given instant in the whole of space is impermissibly not one. But, Dr. Hansson's new version of superdeterminism avoids these two criticisms. There is no actual relation of temporal precedence, because there is no actual cause and effect in physics. Without cause and effect in physics, the collapse of the wave function is not ontologically real, so it is irrelevant whether this imaginary collapse is simultaneous or not.

A seventh criticism is that the non-reversible nature of quantum measurement, i.e. you cannot reconstruct the previous state of a quantum system once it has been measured and its state has collapsed into an eigenstate of the measurement operator, seems to rule out the possibility of our universe being a block universe. In a block universe, all events are predetermined and laid out across spacetime. This implies that the outcome of a quantum measurement must already be fixed on its worldline in the block. But, the purely random outcome of a quantum measurement would have to be reversible in order to be predetermined by deterministic physics appearing in the block universe prior to the quantum measurement. However, this criticism again falsely assumes that wave function collapse is a real thing. And, Dr. Hansson's new version of superdeterminism does not rely on deterministic physics actually causing the purely random outcome of a quantum measurement.

An eighth criticism is that superdeterminism is an unfalsifiable hypothesis, because any data collected in any scientific experiment can be explained away as a predetermined appearance of our static block universe. However, Dr. Hansson's proof is falsifiable provided you can either demonstrate a pertinent error in Special Relativity or actually perform Dr. Hansson's thought experiment and demonstrate that the correlations observed are frame dependent. A ninth criticism is that superdeterminism disproves free will. But, the existence of free will is unsupported by physics and biology. There is no scientific evidence of any deviation in the laws of physics that would support a notion of freely willed action untethered to those laws of physics. Indeed, there is no scientific evidence that brain neurons can act independently from their surroundings.⁴⁰ Finally, one might criticize

square of the wavefunction's amplitude at a specific state. Amplitude is a complex number associated with the wavefunction, and squaring it gives the probability.

⁴⁰ Dr. Robert Sapolsky argues that the concept of free will is an illusion. He highlights how much of our brain wiring is predetermined before we are born. He examines how our upbringing, social conditioning, and life

superdeterminism for not presently offering any new predictions about particle behavior beyond the standard model of physics. But, superdeterminism does offer a profound insight into the nature of the universe, which is surely of interest in the field of the philosophy of religion.

In conclusion, the simple idea that cause and effect are not real goes a long way in addressing many difficult problems in the philosophy of religion. Superdeterminism is one of those great ideas in physics, which has profound consequences on our understanding of God, our universe and ourselves. Moreover, given that the illusions of our experience of time, cause and effect in our universe are inescapable, there is no chance that our abstract knowledge that our universe is superdeterministic will have much impact on scientific progress or our daily lives. Nevertheless, abstract knowledge that superdeterminism provides circumstantial scientific evidence that God is real and that the Christian claim of human immortality is true.

experiences profoundly shape our responses and choices constraining what we perceive as free will. Sapolsky, R.M. (2023). *Determined: A Science of Life Without Free Will*. Penguin Press.