

The effects of the Curse visible in the cosmos present another biblical creationist starlight travel-time problem

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The notion that the Curse was applied to the whole universe creates another light travel-time problem for biblical creation. Even if we assume that God supernaturally instantly cursed all parts of the universe how do we see those effects *now*? Any biblical creation cosmology that assumes the ASC is the language of the Bible, which includes an infinite one-way speed of light to the observer on Earth, has an answer to this question. Yet, any cosmology that assumes the ESC is the language of the Bible, which includes the speed of light limited to c (approximately 300,000 km/s), appears to not be able to answer the question. *This alone would appear to rule out all cosmologies that rely on the ESC as the language of the Bible.*

The Curse is an event that many Bible-reading Christians know something about. We read in Genesis 3:14–17 that God cursed the earth after Adam and Eve sinned against Him by eating of the tree which He commanded them not to eat of. Their sin brought on them the serious consequence of death. God also cursed the creation, bringing about various forms of corruption, which resulted in life being much more difficult for Adam and Eve and the rest of all life on Earth. The Scriptures tell us that God cursed the whole creation—the whole universe. We may conclude this from Romans 5:12:

“Therefore, just as *sin came into the world* [Greek *kosmos*] through one man, and death through sin, and so death spread to all men because all sinned [emphasis added].”

The Greek word *kosmos* meaning ‘orderly arrangement’ is translated ‘the world’ in this verse, but meaning the whole universe. (Incidentally, it is the word from which we derive our English word ‘cosmos’.) Thus it was not only humans that were cursed but the whole universe. This is standard biblical creationist doctrine. This conclusion is strengthened when we read Romans 8:19–23:

“For *the creation* [Greek *ktisis*] waits with eager longing for the revealing of the sons of God.²⁰ For *the creation was subjected to futility*, not willingly, but because of him who subjected it, in hope²¹ that *the creation* itself will be set free from its bondage to corruption and obtain the freedom of the glory of the children of God.²² For we know that *the whole creation* has been groaning together in the pains of childbirth until now.²³ And not only *the creation*, but we ourselves, who have the firstfruits of the Spirit, groan inwardly as we wait eagerly for adoption as sons, the redemption of our bodies [emphases added].”

In this passage the Greek word *ktisis*, meaning ‘original formation’, is translated as ‘the creation’. From the context it has the meaning of the entire creation—animate and inanimate—with the exception of two sets of beings.

From verse 23 we can conclude that ‘the creation’ as used in the context in this passage in Romans 8 does not include the saved children of God. They are treated by the author as a separate category. Of course, they are subject to/feel the effects of the Curse; they ‘groan inwardly’. This just highlights the fact that ‘whole creation’ may not mean everything. Also it would not include the unbelieving humans as they are not eagerly waiting for the adoption as sons of God. And it cannot include the angels, because the good angels are not subject to futility and therefore the Curse. The bad angels ‘fell’ sometime before the Curse itself and many are kept in chains in prison (2 Peter 2:4) until the final judgement. Thus it would seem that the angels are not affected by the Curse. Besides, they are not part of the material universe. So the meaning ‘the creation’ here is all other living creatures (non-human) and all the physical universe.¹

We are familiar with the effects of the Curse in our environment. Corruption and decay is all around in nature and in the inanimate physical world. It has been argued by creationists that the Law of Decay (the Second Law of Thermodynamics) is not itself the result of the Curse because it is a law that living organisms, prior to the Curse, would have relied upon.

One way of explaining God’s action at the Curse is that He withdrew some of His sustaining power, which, prior to the Curse, would have been sufficient to reverse any net corruption in the bodies of Adam and Eve as well as in the physical world. A good example is Moses observing the burning bush (Exodus 3:2–3). The Second Law of

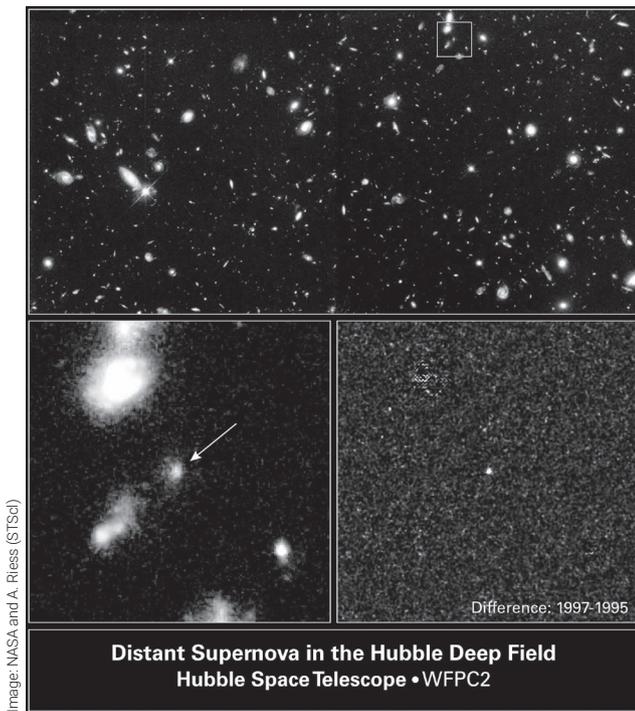


Figure 1. Distant supernova in Hubble Deep Field-North (HDF-N, SN1997ff). The supernova SN1997ff is alleged to be located in a galaxy at a distance of 10 billion light years. It was first seen in 1997. Under the assumption of the ASC it occurred in 1997 but under the assumption of the ESC it occurred 10 billion years ago. If the effect of the Curse was that God removed some of His sustaining power, allowing stars to age and some explode, how do we see the effects only about 6,000 years after the creation?

Thermodynamics describes the physics of oxidation (a decay process) that gives rise to heat and light, but the bush did not burn away as expected. God reversed the decay process with some supernatural power to sustain the bush. Thus at the Curse when He withdrew some of that sustaining power, corruption and decay set in. Prior to that action there was no net decay. As a result there was no death of living creatures (*nephesh chayyāh*).

If the meanings of *kosmos* and *ktisis* in these verses are as suggested then God cursed the whole universe in such a way that we on Earth are able to see those effects in the cosmos. For this discussion it does not matter precisely which are those effects, but only that the language of ‘the creation’ being subject to ‘futility’ means that it all was affected and as earth observers we can see that.

Now here is where the problem comes in.

A light travel-time problem

God is not limited by anything so He could simply have instantly cursed the whole universe. But how are we able to see those effects in the distant universe, millions and billions

of light years away? This would seem to be another starlight travel-time problem.

We don’t know how long after the creation it was when Adam and Eve sinned and God cursed the universe. It most probably was a very short period but could have been several years.² It does not matter. But we do know that the Curse occurred after the conclusion of Creation Week. That is important!

If the language of the Bible uses the Einstein Synchrony Convention (ESC) then all events are clocked by when³ any Earth observer would calculate that the light left the source in the cosmos. Under the ESC the speed of light is isotropic and travels at 1 light year per year or approximately 300,000 km/s and is usually denoted by the letter *c*. If God cursed the cosmos, and instantly and supernaturally did so, and if you believe that earthlings can see the effects of the Curse,⁴ then you have another light travel-time problem in the universe, billions of light years in extent. At the speed of light (*c*) it should take millions and billions of years for the light to reach Earth.

This is the exact same problem for the creation of the stars on Day 4 of Creation Week but now we cannot point to the fact that it occurred in Creation Week. If you argue that we can see the effects of the Curse in the universe as a result of some sort of time dilation effect in a proposed creationist cosmology then you also have to explain how that cosmology could apply after God has finished His creative acts. You no longer have the benefit of some extraordinary supernatural effects during Creation Week because God was creating at that time.

One way out of the problem would be to argue that those Greek words translated, respectively, as ‘the world’ in Romans 5:12 and ‘the creation’ in Romans 8:19–23 do not include in their meaning the whole universe. It might only be referring to the world that man is influenced by. Romans 8:20 states that the ‘creation was subject to futility’. As explained above ‘the creation’ here does not include mankind nor angels but all other lifeforms created by God. God cursed His own physical creation. He also cursed mankind in different ways, but the context of Romans 8 indicates that the creation itself will be released from the bondage of the Curse and will be set free like the saved children of God. So perhaps it is only a reference to the creatures and not the physical world. But from the context that does not seem to be the most satisfactory solution.

If the Curse was only on the solar system there would be no problem. The effects of the Curse could easily be seen within the solar system as light travelling at speed *c* has no difficulty to reach Earth in less than 24 hours.

Another solution, which I am inclined to believe, is that the effects of the Curse outside our solar system are not so apparent. That is, we should never consider a supernova

itself, for example, to be directly a result of the Curse.⁵ Rather, *when* God withdrew some of His sustaining power from the universe,⁶ the Second Law took full control and we see the effects of decay all around. Perhaps when God cursed the cosmos He withdrew some of His sustaining, restorative power bringing on the full consequence of the Law of Decay. The Second Law then is the agency by which stars age and ultimately that leads to stars going supernova (exploding), yet all a result of the current laws of physics. However, that is a topic beyond the present scope of this discussion and is not central to it.

Let's proceed with the most widely held interpretation of these verses. Let's assume the meanings of the Greek words *kosmos* and *ktisis* include all of the visible universe.

The Anisotropic Synchrony Convention provides a solution

As stated above, this presents a starlight travel-time problem for any cosmology where the ESC is assumed to be the language of the Bible. But for any cosmology that assumes the language of the Bible is the Anisotropic Synchrony Convention (ASC) there is no light travel-time problem.

The Curse occurs on Earth sometime after Creation Week. Assuming the whole cosmos is cursed there are two possibilities as to how the Curse was applied to the whole universe. If a 'wave of corruption' was applied it would need to travel outwards at the speed c under any ESC model or $\frac{1}{2}c$ under any ASC model. That means it would take billions of years for those effects to take effect in the cosmos. But the second possibility is that God instantly and supernaturally simultaneously⁷ cursed the whole universe. There was no 'wave of corruption' travelling out from the earth.

For any ESC model the wave of corruption idea is doubly difficult because it doubles the time we would need before we Earth observers could see the effects of the Curse in the distant cosmos. So let's assume that for any model we consider, there was no such speed-limited wave but the cursing of the creation was instantaneous. Furthermore, let us assume that we *do see* effects of the Curse in the universe 'now'.

This alone would appear to rule out all cosmologies that rely on the ESC as the language of the Bible. The light from those 'cursed' sources in the distant cosmos would take billions of years to travel to Earth. So how can we see them 'now'?

Yet, under any cosmology that relies on the ASC as the language of the Bible light from distant galaxies travels to Earth instantly. Events are timestamped at the moment an Earth observer sees them happen. So if God supernaturally instantly cursed all the universe, any effects of that Curse would be instantly seen by Earth observers.

However, you then might argue that the ASC only uses phenomenological language and 'really' it means that it 'really' takes light, travelling at speed c , billions of years to get here. That objection assumes that the speed of light is isotropic and finite—that that is some absolute truth about the universe. However, it is an unprovable assumption. You are just assuming it to be true and hence just begging the question. The one-way (incoming) speed of light might actually be infinite and you could never prove otherwise. You definitely cannot disprove such a claim. This issue then enters the realm of circularity in the argument to disprove the conventionality thesis of the simultaneity of distant events.^{8,9}

But again, let's give the claim the benefit of the doubt. Even though we cannot make this assumption based on any empirical measurement, let us assume that the speed light 'really' travels in from the cosmos is c and hence finite. In such a case God could have created an acausal (space-like) hypersurface at the appropriate time after creation that reflects all events that would be seen in a cursed universe. This hypersurface could have been created exactly the same number of seconds after the initial creation hypersurface of all stars and galaxies as the number of seconds from the Day 4 creation to the Curse.¹⁰

Since God is omniscient and has knowledge of all events in space and time it would be no difficulty for Him to have done so. He sees the future from the beginning.

Isaiah 46:10:

"Declaring the end from the beginning, and from ancient times the things that are not yet done, saying, My counsel shall stand, and I will do all My pleasure [emphasis added]". (KJVER)

Light from all these Curse events would have arrived at the earth at the exact same moment under the assumption of the ASC. That means under the ASC (language of appearance) we (Earth observers in a unique position in the universe) always see everything in the universal 'now'—that is, at the same instant the event occurs, without any billions of years of light travel time.¹¹

In the ASC model, but viewed under the assumption of the ESC, the light from all Curse events arrives at the earth at the same moment but the stars would not have been created at the same moment.¹²

The ASC model requires the stars to have been created in such a way that the first light from all stars arrived on Day 4. The closer stars had to be created later and more distant stars earlier so that all light travelling at speed c arrives at the earth within the 24 hours of Day 4. A star a billion light years away had to have been created a billion years before a star one light year away.

Under the ASC the Curse event occurs throughout the whole universe the instant God gave the word.

This is reflected in Isaiah 48:13:

"My hand also has laid the foundation of the earth,

and My right hand has spanned the heavens: *when I call to them, they stand up together* [emphasis added].” (KJVER)

This verse indicates instantaneous creation. Regardless of how far apart the stars are they were created together at once, meaning at the same time (measured on Earth), but not at the same place. This is easily understood as instantaneous under the ASC model. That is, viewed from Earth the stars were created simultaneously or at least all on Day 4.

In the same way God inflicted the Curse upon the heavens. He spoke the word and the effects were instantaneous and simultaneous. No delay at all. No millions or billions of years of waiting. From this perspective there is no alternative but to believe that the language of the Bible employs the Anisotropic Synchrony Convention.

Conclusion

If you believe that the Scriptures describe the Curse as a universal event and that the effects of that were, and are currently, observed in the whole universe then this introduces another light travel-time problem for biblical creation.

Even if God instantly and supernaturally simultaneously cursed the whole universe how are we able to see such effects in the distant cosmos, millions and billions of light years away?

The Curse occurred after the conclusion of Creation Week. Though the Curse itself required some supernatural intervention in the creation there is no suggestion that anything like the creation of stars occurred after Creation Week. That means there were no supernatural creative processes on the scale of the whole universe that one might argue produced some sort of relativistic time dilation effects.

Rather, I suggest the *main effect of the Curse on the cosmos* was the removal of some of God’s sustaining power, which allowed full reign to the Second Law of Thermodynamics, the Law of Decay. Hence stars began to burn up their fuel. We see effects of that type everywhere in the cosmos.

So if the light from cosmic sources affected by the Curse travels in to Earth at the speed of light, c , then wouldn’t the light from those events still be travelling in towards Earth? Any cosmology that assumes the ASC is the language of the Bible can answer this question within the biblical timeframe of about 6,000 years. But it would seem that any cosmology that assumes the ESC is the language of the Bible, and is hence limited to the finite speed of light, has another light travel-time problem. *This fact alone would appear to rule out all cosmologies that rely on the ESC as the language of the Bible.*

References

1. See also Sarfati, J., *The Fall: a cosmic catastrophe*, 2005; creation.com/the-fall-a-cosmic-catastrophe.
2. It had been argued by CMI authors that since Adam and Eve were created to fill the earth, they would have been fecund. And no child was conceived until after the Curse/Fall, so the Curse must have occurred before Eve could conceive; that is, within days or a week or so at most.
3. Using local Earth clocks. All biblical creationist cosmologies must record the creation of all stars on Day 4 of Creation Week, a 24-hour day. It is essential that this is measured by local Earth clocks, but it is not necessary that it be so if measured by hypothetical cosmic clocks.
4. It may be argued by some that we humans on Earth do not see the effects of the Curse in the cosmos. But for argument sake I’ll take the position that we do see the effects in the cosmos. If we don’t then the problem I highlight here goes away, but it introduces another problem. Why would God even mention it affecting the ‘whole creation’ if we cannot see it?
5. Lisle, J., *The search for a cursed cosmos*, 2009; answersingenesis.org/astronomy/cosmology/the-search-for-a-cursed-cosmos/.
6. This is also referred to as His sustaining power, or a compensating restorative power.
7. Simultaneously to any Earth observer.
8. Hartnett, J.G., *New cosmologies converge on the ASC model—a review of two cosmology papers presented at the International Conference on Creationism in 2018*, *J. Creation* 33(1):71–77, 2019.
9. Hartnett, J.G., *Einstein’s physics says there is no biblical creationist starlight travel-time problem*, Review of the book *The Physics of Einstein* by Jason Lisle, *J. Creation* 33(2):22–28, 2019.
10. Dennis, P.W., *Consistent young earth relativistic cosmology*; in: Whitmore, J.H. (Ed.), *Proceedings of the Eighth International Conference on Creationism*, Creation Science Fellowship, Pittsburgh, PA, pp. 14–35, 2018.
11. It is necessary to understand that only Earth observers exist by God’s special creation. There are no other observers elsewhere in the universe. Only then can we say the ‘now’ we experience on Earth is true for the whole universe.
12. Newton, R., *Distant starlight and Genesis: conventions of time measurement*, *J. Creation* 15(1):80–85, 2001; Lisle, J.P., *Anisotropic Synchrony Convention—a solution to the distant starlight problem*, *Answers Research J.* 3:191–207, 2010.

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