

Article

More Thoughts on Light, Matter, Space & Time

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ABSTRACT

Space is precisely that place for me where I am not. If I am everywhere in the universe, then there will be no such place left for me any more, and thus I will be spaceless. When there will be space for me, there will also be time. Because in that case it will be possible for me to move from the place where I am to the place where I am not and thus there will be two events, one before, and one after; this will constitute time for me. But in case I am everywhere in the universe, no such occasion can ever arise, and so there will be no time for me. But if the universe as a whole is in some super-space or hyperspace, then again there will be space and time for it, but in that case it will no longer be The Whole. Thus The Whole, by definition, will always be spaceless and timeless. It is this, and this only, that can be so purely naturally. The light, not being The Whole, but still possessing its two said properties, gives us certainty that The Whole exists. The reason as to why God is spaceless and timeless is that there cannot be anything outside God.

Key Words: light, matter, space, time, zero, timeless, spaceless, God.

Light, Matter, Space & Time

What does the light want to impress upon us? It impresses upon us that the world we experience is some sort of an illusion, a maya. That is why when we will posit that the distance between any two points in space is some billion light-years it will show that this distance is not actually that much, but zero. Similarly if we posit that the time difference between the occurrences of two events is some billion years, it will again show that actually no time has elapsed between the occurrences of these two events. But what purpose does it want to serve by showing that our day-to-day experienced world is such an illusion?

According to the scientific view, there cannot be any space and time (reference frame at rest) without matter (rest mass). Similarly, there cannot be any matter without space and time. If this scientific view is correct, then space, time and matter appeared simultaneously after the big bang. When they will be gone again, they will also be gone simultaneously. As there cannot be any space and time without matter, so there was no space and no time when there was no matter, that is, at $t = 0$. But scientists have also shown that time can become extinct only at the speed of light. So, when $t = 0$, there was light. Thus, before the beginning, there was light.

Physicists have shown that space, time and matter are so interlinked that there cannot be any space and time without matter. Similarly there cannot be any matter without space and time. Let

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us call this statement (A). If (A) is scientifically correct, from this also we can come to the conclusion that volume of the universe is zero.

Physicists have also shown that total matter of the universe is zero. They have shown that total energy of the universe is zero. So total mass of the universe will also be zero due to energy-mass equivalence. Matter has mass. So, if total mass of the universe is zero, then total matter of the universe will obviously be zero. But from (A) we come to know that there cannot be any space and time without matter. Therefore, if total matter of the universe is zero, then total space of the universe will also have to be zero. Similarly total time of the universe will also have to be zero. This is only because there cannot be any space and time without matter. Universe as a whole is therefore spaceless, timeless and immaterial.

When scientists say that total matter of the universe is zero, they do not mean to say that there is no matter in the universe. Only that sum-total of all the matter of the universe is zero. Similarly when we say that total space of the universe is zero, we do not mean to say that there is no space in the universe. Only that sum-total of all the space of the universe is zero. But if the sum-total of all the space of the universe is zero, volume of the universe is also zero because volume is nothing but total space.

So, either (A) is scientifically incorrect. Or, if it is not, then volume of the universe is indeed zero. One of the predictions of God-hypothesis is that volume of the entire universe must be found to be zero. And we find that it is indeed zero. This gives us one more reason to believe that God-hypothesis is true.

Zero-volume Universe

Let us suppose that the volume of the universe is not zero. As volume indicates total space, so in that case total space of the universe will not be zero. As there will be space, so there will also be time, because as per Einstein's theory of relativity space and time cannot be thought of separately. As the universe as a whole will have space and time, so the universe will contain some matter also, because there cannot be any space and time without matter. So our conclusion is this: if the volume of the universe is not zero, then neither the total matter of the universe is zero. But as scientists say that the total matter of the universe is zero, so in order that it can be zero, the volume of the universe will also have to be zero.

If total matter of the universe is zero, multiverse theory is definitely false. If the multiverse theory is true, our universe is not the only universe; there are billions of other universes, perhaps an infinite number of them, out there. Our universe will then be a member universe of that multiverse occupying a tiny space within it. So, if it can now be shown that our universe as a whole does not occupy any space at all, then the multiverse theory will be falsified.

Physicists have already shown that the total matter of the universe is zero. Let us call this statement (A). Physicists have also shown that space, time and matter are so interlinked that there

cannot be any space and time without matter. Similarly there cannot be any matter without space and time. So, when there will be space and time, there will also be matter there along with that space and time; and conversely, when there will be no space and time, there will be no matter.

Similarly, when there will be some matter, there will also be space and time there along with that matter; and conversely, when there will be no matter, there will not be any space and time. Let us call this statement (B).

If (A) and (B) are scientifically correct, then from these we can show that the universe as a whole does not occupy any space. Let us now suppose that the universe as a whole occupies some space in some hyper-space or super-space. Something, the volume of which is zero, cannot occupy any space, simply because its volume is zero. So something that occupies some space will have certain volume, whatever that volume may be. Therefore our universe occupying some space in hyper-space or super-space will also have certain volume, and thus its total space-content will not be zero. So the total matter-content of the universe cannot be exactly zero in that case, because from (B) above we have already come to know that there cannot be any space and time without matter. If its volume was exactly zero, then only its total space-content would have been zero. And in that case only its total matter-content would have been zero.

As I have already explained something having zero volume cannot occupy any space. But as this is not the case in our example, and as the universe as a whole occupies some space, so its total matter-content cannot be zero. But scientists have already shown that the total matter-content of the universe is zero. So, if (A) is true, then the universe as a whole cannot occupy any space. Something occupies some space means it is in some space. Therefore we can also say that as a whole the universe cannot be in any space.

But, if the multiverse theory is true, then our universe as a whole will be in some space within the hyper-space or super-space of the multiverse. In that case the total matter-content of our universe will not be zero. So, either (A) is false; or (B) is false; or both (A) and (B) are false. But if neither (A) nor (B) is false, the multiverse theory is definitely false.

In brief, if the volume of the universe is zero, then its total space is zero, and in that case only its total matter will be zero. But if its volume is zero, then our universe cannot occupy any space in some super-space or hyper-space of the multiverse, simply because its volume is zero. So, if total matter of the universe is zero, then the multiverse theory is definitely false.

In most of the recent origin-theories provided by the scientists the so-called void is treated as a real void. But treating that void as a real void requires an absolute certainty regarding the non-existence of God. But this absolute certainty these scientists do not possess, as will be evident from the following statement made by Victor J Stenger, an atheistic scientist, in connection with his review of the book "Who made God?" written by Edgar Andrews, a British chemist, "I simply say that God is not needed as part of any existing models but make clear that, if the evidence should require it, science should be ready to include supernatural causes. If anything, Andrews should appreciate that, unlike most scientists, I allow for the possibility that we may not

always be able to explain everything purely naturally. Currently we can, but I cannot predict the future.” (whomadegod.org/2011/06/victor-stenger-replies-to-who-made-god/)

So here he confesses that they may not always be able to explain everything purely naturally, which means that they are not absolutely certain about the non-existence of God. This further implies that they can neither be absolutely certain that the void is a real void. So these scientists should know that all their origin-theories may not be the real truth.

The Whole

Here we will speculate about an entity which we will name “The Whole”, or in brief, TW. Scientists have speculated earlier, they are speculating now, and they will speculate in future also. So we are also fully entitled to speculate, and it is our birth-right to speculate! Definition of this TW will be this: it is an entity outside of which there cannot be anything; no space, no time, no matter, simply nothing. Here it may be asked as to whether such an entity can exist at all. But this question is absolutely irrelevant here, because we have already written that we are simply speculating here, and nothing else. If such an entity exists, then we can examine what will be the properties of this entity.

As it will be neither in space nor in time, so it will have no space and no time, and thus it will be spaceless and timeless purely naturally, or simply by default. It will have three other properties also purely naturally, e.g., changelessness, immortality and immobility, but for our present purpose they are not so relevant, and so I will not go into detail here as to how TW will have these three properties. Rather I will concentrate on its two properties of spacelessness and timelessness only.

We have seen that TW will have these two properties purely naturally, and we can say that nothing else other than TW can have these two properties in this way. For any other entity to have these two properties purely naturally it will also have to be neither in space nor in time, that is, it will have to be another TW. But there can be only one TW, because being the whole it will engulf everything, and thus outside of it there will be nothing else that can be another TW. Thus we come to the conclusion that there can be only one TW, and that other than this TW nothing else can have the two said properties purely naturally. But despite this we find that the light, although it is not TW (why it is not TW has been explained below), still has these two properties of spacelessness and timelessness. For some mysterious reasons both space and time become unreal for the light, and thus it finds itself neither in space nor in time. Here we see that the light is in the same situation as that of TW, because TW is also neither in space nor in time. But whereas for TW this situation is quite natural, because being TW it cannot have anything outside it, for the light this situation is not so natural, because the light is not TW.

The light is only one entity among many others either created by someone, or originated from something, and so, the light can in no way be called TW, and thus the light cannot have those two properties in any natural way. Whereas in case of TW there is nothing outside it, in case of the

light this is not so, because in most of the cases the entire universe is lying outside it. Thus, quite unlike TW the light is placed both in space and in time, and so, its properties of spacelessness and timelessness are also not natural. There is a compelling reason for TW to be spaceless and timeless, because being neither in space nor in time it can in no way be other than these; but for the light there is no such compelling reason.

The light could also have been neither spaceless nor timeless, because about the light it cannot be said that it is neither in space nor in time. Being both in space and in time, there is no natural reason as to why it will have to be spaceless and timeless, but in spite of that we find that it is having these two properties. Therefore we can conclude that these two properties of the light have not naturally arisen in it. Not being natural it must have received these two properties from some other external source, and this external source can only be TW, because only TW can have these properties purely naturally.

The light could also have received its two properties from some external source other than TW (say A), but A not being TW would also have to receive these properties from another source (say B), and then B would have to receive its properties from another source (say C), and so on ad infinitum. So it is better to assume that the light has received its properties directly from TW, and in this way we can avoid an infinite regression. Thus the properties of spacelessness and timelessness of the light compels us to conclude that TW exists, as it is the only source that can have the two said properties purely naturally. Not only that, this TW must have to have consciousness also, as otherwise it will be impossible for it to impart its own properties to the light in any conceivable way. This conscious TW we call God.

If I am placed within space and time, and if I am in no artificial way deprived of them, then there is no apparent reason as to why I will lack any space and time. Therefore there is no apparent reason as to why I will be spaceless and timeless. The same logic also equally applies to the light as well. But this very simple logic the atheists fail to understand. Perhaps they do not want to understand it willingly, because once they understand it, then they will have no other option but to admit that God is real. So what are we to do in this situation? We will have to go on hammering till the entire atheistic world can be made convinced that there is a God.

Conclusion

Space is precisely that place for me where I am not. If I am everywhere in the universe, then there will be no such place left for me any more, and thus I will be spaceless. When there will be space for me, there will also be time. Because in that case it will be possible for me to move from the place where I am to the place where I am not and thus there will be two events, one before, and one after; this will constitute time for me. But in case I am everywhere in the universe, no such occasion can ever arise, and so there will be no time for me. But if the universe as a whole is in some super-space or hyperspace, then again there will be space and time for it, but in that case it will no longer be The Whole. Thus The Whole, by definition, will always be spaceless and

timeless. It is this, and this only, that can be so purely naturally. The light, not being The Whole, but still possessing its two said properties, gives us certainty that The Whole exists.

The reason as to why God is spaceless and timeless is that there cannot be anything outside God.

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