

Eternalism and Presentism

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Abstract: In this paper I will argue that past and future times do not exist by arguing for Presentism over Eternalism. First, I will answer two common objections to Presentism, known as the truthmaker objection and the objection from special relativity. Then, using my answer to the truthmaker objection, and establishing a dilemma, I will argue that Presentism and Eternalism agree on the set of objects that truth depends upon; they simply refer to the set by different names. Eternalism and Presentism agree about what presently exists and agree about what doesn't presently exist. The Eternalist simply calls the state of these non-presently-existing things existence simpliciter, whereas the Presentism refers to this state as a lack of existence. But Presentism succeeds in referring to the class of objects in a better way. Because of this, I will show that special relativity, if it is a problem for Presentism, is also a problem for Eternalism, and to resolve this problem, we should accept neo-Lorentzian theory. Together, this makes a more coherent and intuitive description of reality without ad hoc explanation. It does this largely by maximizing virtues such as explanatory power and simplicity.

Eternalism is the claim that the past, present, and future all exist. Presentism is the claim that the only time that exists is the present. From this it follows that the only things that exist, exist right now. In other words, the only things that exist are presently existing things. In this paper I will argue that past and future times do not exist by arguing for Presentism. First, I will answer two common objections to Presentism, known as the truthmaker objection and the objection from special relativity. Then, using my answers to these objections as a starting point, I want to give some motivation for the tensed theory of time (since Presentism implies it) and Presentism itself, by claiming this picture (i.e. the denial of truthmaker and the objection from special relativity, the tensed theory of time, and Presentism) makes a more coherent and intuitive description of reality. Furthermore, it does this largely by maximizing virtues such as explanatory power and simplicity.

First, the truthmaker objection goes as follows:

- (1) truth supervenes on what exists,
 - (2) there are true facts about the past,
 - (3) the truth of these facts does not supervene on what presently exists, therefore
- (Conclusion) what exists must be more than what presently exists.

What premise (1) means is that if there is another world that is identical to ours in terms of what exists,

then all propositions in it have the same truth values. The motivation for premise (1) is that truth depends on the contents of reality. This seems, at least, initially plausible. The motivation for premise (2) is intuitive and seems to be something no one wants to give up. If premise (2) goes, then we cannot say such things as “dinosaurs existed” is true. The motivation for premise (3) is a bit more confusing, so I will focus on that in the next paragraph. As for the conclusion, it does directly refute the main claim of Presentism, and it seems to me to be necessary given the premises.

The motivation for premise (3) is the suggestion of an elaborate hoax world and the truncated past world. Take any fact about the past. Let’s say that the Roman Empire existed. Assume that this is true. Now imagine a world in which this is not true, but all of the same evidence for the Roman Empire exists. Some organization of history-hating aliens planted all the evidence we have of the Roman Empire – weapons, statues, records, etc. How do we know we are not in such a world? Is it not possible? It seems that what presently exists in this hoax world and in our world are exactly the same, yet they differ in terms of facts regarding the past – namely that the Roman Empire existed. Therefore, it seems that what presently exists in a world does not make facts about the past true – i.e. facts about the past do not supervene on what presently exists. There is a problem with this suggestion, however.

The problem with the elaborate hoax, some may argue, is that it is not possible for everything about our world to be the same in this hoax. Some things – perhaps the subatomic structure of the statues – will be off. What presently exists in the two worlds is not the same. The Eternalist can respond to this suggestion, however, with the truncated past world. Imagine a world that popped into existence one second ago. It is exactly the same as our world in terms of everything it contains. Now, it seems that what presently exists in this world and our world are exactly the same. Yet, in this truncated past world, there never was a Roman Empire. In fact, none of the things that are true of the past in our world are true of the past in this world. So it cannot be that truth supervenes on what presently exists.

This motivation seems to be flawless to me. But I still think it appropriate to reject the truthmaker argument. I will do this by attacking premise (1). I will show an equally legitimate way premise (1) could be false, and, because the argument provides no motivation for the truth of premise (1), I will show that the argument fails. I will do this by denying that truth supervenes on what exists, because I will insist that truth does not depend only on what exists, but also on what existed. That is, truth about the past depends on what used to exist. (For example, it is true that the Roman Empire existed because it was true that it exists.)

This answer at first may seem similar to positing the existence of Lucretian properties – i.e. properties of present things about how they were. However, it is not. Positing Lucretian properties attacks premise (3); it posits presently existing things for truth to be based off of. But this adds some unnecessary entities into our metaphysics. It says that facts about what used to exist in the past depend on this extra existent property of our world about how it used to be. But why say that when you can just say that facts about what used to exist in the past depend on what used to exist? Of course what used to exist is a fact that concerns the world, but we don't need to make up new metaphysical properties this way.

One may object that it does not make sense to talk about something that does not exist. But, in answer, it should be noted that according to the Eternalist, truth supervenes on things that do not presently exist, but on things that used to presently exist. This should sound just as bad as saying that under the Presentism theory, truth supervenes on what used to exist. In fact, they are referring to the same set of objects, but by different names! They agree upon what objects truth supervenes, and they pick out the same set. The only thing Eternalism adds is saying that these past things exist simpliciter. But just saying something exists when it isn't physically embodied or located somewhere and cannot physically interact with reality doesn't add any metaphysical entity for truth to depend

on. And we don't need one! There it seems there is an equally legitimate way premise (1) could be false and the truthmaker objection fails.

Now, starting by considering my response to the truthmaker objection that Presentism and Eternalism are saying the same thing about the relation between truth and existence, I want to argue that Presentism is better. I want to argue that even though they both ultimately say the same thing about the relation between truth and objects, Presentism says it better. I will now create a dilemma where the end result is the eternalist must be inconsistent, or say the same thing as Presentism less simply.

Assume for a second that the Eternalist is committed to the following:

(a) Dinosaurs do not presently exist

This will be the first option in our dilemma. Now we can set up an inner dilemma (in the greater dilemma) for the Eternalist. Suppose he says this means that "Dinosaurs do not exist in the present." Then this entails the weaker claim, "Dinosaurs do not exist if it is the present." But then we can establish by the true premise, "it is the present," and modus ponens that "Dinosaurs do not exist." Thus we can establish Presentism. Now suppose that he goes with his other option in this inner dilemma and says, "Never mind; dinosaurs do exist in the present." Now he runs into a problem here too.

He has said that Dinosaurs do presently exist, but Dinosaurs do not exist in the present. This implies that “exist in the present” is not the same as “presently exist,” but they are clearly the same. So it seems that so long as the Eternalist is committed to (a), he runs into a dilemma where he must either accept Presentism (and contradict himself) or say something false. Thus this first horn of the greater dilemma leads to inconsistency.

Now let’s assume that the Eternalist is not committed to (a). (This is the second option in the greater dilemma). Instead he decides he needs to be more specific and he commits himself to:

- (a1) Dinosaurs do not presently presently-exist
- (a2) Dinosaurs do presently exist-simpliciter

By drawing this distinction, the Eternalist has found a way out. Or so it would seem.

If the Eternalist draws the distinctions he must (because the first horn of the dilemma is inconstant, which is unacceptable) and says that Dinosaurs do exist-simpliciter in the present, he is internally consistent, but he has said too much. Or rather, he has confused matter by saying things in a way he ought not to. What we started out wanting to say is whether Dinosaurs presently exist. And we wanted to say, “They no longer presently exist!”. But he cannot say this. He must say things like, “They no longer presently presently-exist. Sure we could do this and be internally consistent,

but do we really want to? Do we want to make this distinction every time we say “exist?”. I think the answer is no. We can say something exists simpliciter if it used to exist, but it seems that this does not capture what we mean by the term “exist.” We could make up a new sense of “exist” – i.e. exist across all time – but why should we? It is only the Presentist that does not have to.

In still other words, the Eternalist cannot say, “all times exist simpliciter, but (currently) only the present exists,” because “exists” includes “exist simpliciter.” He needs to say something like, “all times exist-simpliciter, but only the present presently-exists,” but this is awkward and unnecessary. Thus, Presentism and Eternalism agree on the set of objects that truth supervenes upon; they simply refer to the set by different names. Eternalism and Presentism agree about what presently exists and agree about what doesn’t presently exist. The Eternalist simply calls the state of these non-presently-existing things existence simpliciter, whereas the Presentism refers to this state as a lack of existence. But Presentism succeeds in referring to the class of objects in a better way.

Next, I want to talk about the objection from special relativity. Picture a moving train with a light bulb placed in the center of one of the carts. The light is turned on and light from the bulb heads both toward the front and back of the cart. To an observer in the cart, the front and back walls of the cart are stationary.

Now, according to special relativity, light always travels at a constant speed, no matter how fast the source that emitted it is traveling (which is the bulb in this case). Thus, to an observer in the cart, the light hits the front and back walls simultaneously. From where an observer outside of the train is standing (i.e. his reference frame), however, the rear wall of the cart rushes up to meet the light, and the front wall rushes away. Thus, the light hits the rear wall first, then the front wall. Thus, according to special relativity, there is no fact of the matter about what events occur simultaneously (or absolute simultaneity), but only simultaneity relative to a reference frame. Now, the objection follows: Presentism says that what exists is what exists presently, but what events are in the present relies on them all being simultaneous, and simultaneity depends on the reference frame, and so there cannot be a fact of the matter about whether an event exists and what is present. (E.g. for someone travelling really fast, they will pick out a different set of events as being simultaneously present).

Now, there are two ways people typically reply to this. The first is by suggesting a different way to pick out things as being present in some way other than with some sense of simultaneity (such as all events happening at the same spacetime point or in a light cone). This, however, changes our conception of the present entirely and completely undermines our motivation for (and conception of) Presentism, so I will

not discuss them for the same reason I will not discuss viewing Presentism as the view that the only thing that exists are future dinosaurs. Additionally, the choice for definitions and the location of such points seems arbitrary. So, I will take the second route: insisting that there is a fact of the matter about what happens at the time. This way, we can still have a coherent picture of the present. I will do so by embracing neo-lorentzian theory. According to this theory, there is a privileged reference frame that determines facts about absolute simultaneity, even if we cannot measure it. This theory makes the same predictions special relativity does, but also allows us to maintain our notion of the present.

One may wonder which reference frame, then, is correct. Well, the reference frame of the universe – the stationary one, the one in which nothing is moving. This seems like it may not help, since we cannot find it, but this should be no more of an issue for neo-lorentzian theory than it was for absolute space. And, in fact, this does require absolute space. One may object also that neo-lorentzian theory is an ad-hoc fix for Presentism, but I will show quite the opposite: assuming absolute space does not exist is the ad-hoc fix.

Some may argue that neo-lorentzian theory is an ad-hoc fix, but it actually fits well with absolute space, which does not require an ad-hoc fix as assuming relative space does. Here's why: Imagine a bucket spinning in space with water. The bucket spins, then the water does and forms a concave shape. Now

remove all other matter in the universe. The water is still concave, but is not spinning relative to the bucket, or anything else discernable. So why is the water concave? It is spinning with respect to absolute space. This is Newton's Bucket argument. Mach did provide an answer to this argument – namely that the water would not form this concave shape; this shape only occurs when the bucket is rotating with respect to other matter (most of the mass in the universe in fact). But to me, it doesn't seem right that something outside of the bucket can effect the accretion it feels. Also, it seems wrong that the only difference between a bucket spinning and not spinning could be the presence of a large stationary rock next to it. Moreover, that this rock soaring around the bucket would also make the bucket feel acceleration and the water change shape. To posit otherwise, as Mach does, seems like an ad hoc fix to the laws of nature to me. Thus Presentism forms a nice coherent picture with neo-L theory and absolute space. Furthermore, Eternalism actually faces the same issue with special relativity.

Recall what we learned from the truthmaker objection – namely, that Presentism and Eternalism pick out the same class of objects as existing and presently-existing respectively. This brings up an interesting point about special relativity. Since Presentism and Eternalism do agree on what presently-exists, then isn't special relativity just as much a problem for Eternalism? Special relativity would imply for Eternalism that what

presently-exist does not depend on any one present; it is also relative to a reference frame. Thus the same argument can be made: Eternalism says that what presently-exists is what presently-exists presently, but what events are in the present relies on them all being simultaneous, and simultaneity depends on the reference frame, and so there cannot be a fact of the matter about whether an event presently-exists. (E.g. for someone travelling really fast, they will pick out a different set of events as being simultaneously present. In one reference frame, things in our past could presently-exist). There is still an issue here to be resolved. This provides more reason to think that the neo-lorentzian theory is the correct one, and that special relativity is not an issue for Presentism.

Additional motivation for the picture I am presenting can be seen in the tensed theory of time, which Presentism implies. One may worry that this complication is a problem for Presentism, but I hold it to be, in fact, an explanatory virtue. When a theory is underdetermined by empirical evidence (i.e. there are multiple theories consistent with the data), it is commonly held that we have the epistemic right to choose by maximizing the supraempirical virtues, and one of these is explanatory power. First, let me discuss the tenseless and tensed theories of time.

The tenseless theory of time is the claim that maintains there are no irreducibly tensed facts – i.e. there is no fact about what is happening right NOW in

an objective sense, nor about what time is the present. According to this theory, when we say “now,” we mean something more like, “simultaneous with this utterance” or “simultaneous with this thought.” The tensed theory is the negation of the tenseless theory of time – i.e. there is a fact about what is happening right NOW.

The first motivation for the tensed theory I want to give is based on the intuition that time is not static. To me, at least, it seems intuitive that a static timeline depicting the world without a moving present is incomplete and wrong. What would time be if it didn't have a moving objective NOW? How could it flow? Why do we only experience the present? If time doesn't pass, then what even is time? Of course, the Eternalist could answer these questions in some way and even suggest that there is an objective NOW (i.e. combining Eternalism with the tensed theory of time), but in answering them or positing this combination of theories seems like an ad hoc fix. (This combination is known as the moving spotlight view.) Only Presentism is strengthened by the connection to the tensed theory of time. This happens because it explains it. There is an objective NOW because it is the only time that exists.

The second motivation for tensed theory I want to give is from temporal value asymmetry. The temporal value asymmetry refers to the preference people have for painful things to be in the past and pleasant things to be in the future. For example, imagine on Monday

you know that you have a painful doctor's the next day – Tuesday. You are deathly afraid of needles greater than 0.2 inches and this one is going to be a whopping 0.5 inch needle. You don't want this appointment to ever come – you don't want it to be in your future – but you go through with the necessary appointment, terrified. Afterward, the pain and fear are gone. You don't care about the appointment anymore and don't dread it's passing. You prefer for it to be in the past, and not the future. Additionally, the same thought process can be mirrored for future events. Taken together, we now have rational reasons for our preferences known as the temporal value asymmetry.

Now the tensed theory explains this temporal value asymmetry well: What makes this true is that there is a fact about what WILL happen, a fact about what is happening NOW, and a fact about what HAS happened. Without these facts, we would have nothing to like or dislike. This, however, is precisely what the tenseless theory claims to be false. The tenseless theory claims that these facts are not true. Again, the Eternalist could object and explain temporal value asymmetry by positing the tensed theory, but this is an ad hoc fix. And even the tenseless theorist could explain the temporal value asymmetry by saying it is irrational, but then it is on the proponent to posit another cause for the non-arbitrary pattern of our preferences, and, assuming one exists, the theory will become more complex (and less simple).

So, now we are left the fact that Presentism explains the tensed theory of time, while Eternalism does not. Additionally, the tensed theory of time explains the temporal value asymmetry, so Presentism does as well, in turn. Thus, due to the tensed theory of time, it seems, the explanatory power of Presentism is greater than that of Eternalism.

There is, additionally, one more supra empirical virtue that Presentism maximizes, that I have hinted at. This is simplicity. The argument here is fairly straightforward: Presentism only posits the existence of one thing – the Present – while Eternalism also requires the existence of the past and future. Since Presentism maximizes this virtue, and is preferable, or at least equal to Eternalism in others (such as predictive power), Presentism is preferable and the theory that ought to be accepted.

In conclusion, in this paper I argued that past and future times do not exist by arguing for Presentism. I answered two common objections to Presentism – truthmaker objection and the objection from special relativity. Then, using my answer to the truthmaker objection as a starting point, I argued that Presentism and Eternalism don't actually disagree about what truth depends on, and that Presentism says it better. Then assuming this, I showed that it elucidates an issue for Eternalism under special relativity and why we should accept neo-lorentzian theory. Additionally, I showed that that in light of this picture which fits well

together without ad hoc explanation (such as assuming absolute space does not exist), it seems Presentism is the correct theory. And, not only that, but Presentism also maximizes supra empirical virtues of explanatory power and simplicity in its explanation of the tensed theory (and in turn the temporal value asymmetry) and in its lack of unnecessary additions, namely the existence of the past and future. Thus, Presentism explains things we have motivation to believe and is simpler. The Present, it seems, is the only thing that exists – a description of what exists and is happening NOW.