

Issues in Contemporary Metaphysics

Lecture 7: Time

1. The ontology of entities at non-present times

Presentism

You might think it all very strange – isn't it straightforwardly true that only present things exist? This is the view of the presentist.

Presently existing things exist: I exist, you exist, Obama exists, Mars exists.

Past and Future things *don't* exist: Dinosaurs don't exist, Napoleon doesn't exist, your great-great-grandchildren don't exist, outposts on Mars built by the Effingham-Dushku World Empire in the year 2088 AD don't exist etc.

Presumably, presentism seems intuitively, maybe even obviously, true.

Eternalism

Eternalists think all of those things exist. Of course they don't think they all exist *now*. You and I exist *now* but dinosaurs don't, nor the outposts. These things exist, but aren't spatiotemporally local.

Just as with 'here' and, if you're Lewis, 'actual', 'now' is an indexical notion. To exist 'now' is just to be simultaneous with me. To exist in the future isn't to not exist yet, but to exist and to be latter than when I currently am. To exist in the past is to exist and be before when I currently am.

Moreover, you might (probably?) believe that there is some sense to exist other than existing now. Abstract objects – if there could be any – would exist, but wouldn't exist *now* as they're not *in* spacetime.

Growing Block Theory

GBT says that past and present things exist, but not the future ones. As the present moves and time goes by, the some total of things that exist gets bigger. It's a 'block' of time that's 'growing'.

Moving Spotlight

Notice that the presentist and the growing block think that there's something 'special' about the present moment. They are a bit like the actualist – what actually exists is 'special'. The eternalist I've depicted doesn't believe this. They believe that what is present is what's nearby. Just as no place is special by being 'here' no place is special by being 'now'. They're like the GMRist.

This debate – whether the present is metaphysically special – is relevant to the philosophy of time. Is A-theory true (the tensed facts are fundamental) or B-theory (the tenseless facts are fundamental). We'll basically ignore it in favour of ontology.

Although you *can* have an eternalist who thinks the present is special. They believe eternalism but believe that the present moment is special. How it's special is up for debate – it's clear why the presentist think it's special (it exists, no other time does!) so it's unclear *what it is to be special*. But even though all the times exist, they change concerning which is special. Like a row of houses having a spotlight passed across them.

2. Presentist Problems I: Singular Propositions

The normal dialectic is to argue that presentism suffers problems that eternalism can solve. So presentism is the default, but is flawed in a way that eternalism can fix.

Singular Propositions are propositions directly about some particular thing.

All men are mortal – not singular.

$\forall x (Fx \rightarrow Gx)$

There is a black pigeon – not singular.

$\exists x (Fx \ \& \ Gx)$

Nikk is a lecturer – singular.

Fa

Some SP are about past things that no longer exist

Ghenghis Khan was a Mongolian Warlord.

Seems to be of the form Fa.

So, if you're a presentist, there are allegedly SP about past and future non-existents. Why's that a problem? Think back to Quine. Quine wanted to eliminate direct reference to Pegasus to avoid a commitment to Pegasus. Thus the introduction of definite descriptions. The same thing applies here. You better not endorse classical logic and Quinean ontological commitment and say such that sentence is Fa as that immediately entails Ghenghis Khan exists.

Further, some philosophers think propositions are structured entities that have constituents. Again, we haven't really talked about the ontology of propositions (remember, Lewis thought they were sets). Some people think they're 'built up' out of other things. For instance, Fa being built up out of the property of F-ness and a. On the other hand, the eternalist has no hassle! So what if it entails Ghenghis exists? *That's fine.*

Options

- Deny that singular propositions are existentially committing.
- Argue that no singular proposition is true.

How to do the latter? Some form of paraphrase! For instance:

Ghenghis Khan was a Warlord could be:

WAS: Fa

Where 'WAS' is a non-factive operator. Funnily enough, it isn't always so easy... I leave you to look into the issues.

3. Presentist Problems II: Truthmaking

Truthmaking

Truthmaker: If p is true, then there has to be something that makes p true.

Truthmaker is contentious. < Nikk is a lecturer > isn't made true *by me*. I could exist and that proposition be false.

< Nikk exists > Nikk can be the truthmaker; the state of affairs of my atoms being arranged a certain way.

< Nikk is a lecturer > The *state of affairs* of 'Nikk being a lecturer'; the *trope* of Nikk's 'lecture-nity'

Truthmaking, then, can be used as a guide to what exists. Figure out the true propositions, figure out what it takes to make them true, and you've got your ontology. Truthmaker is an alternative way of doing ontological commitment.

It was originally conscripted in to do away with Phenomenalism. No objects but 'If I look left I'll have the sensation of a door' is true. Truthmaker demands a TMer! If objects exist, it's easy to see what it is. Phenomenalists can't find TMers, so are stuffed. So it's a *methodological* principle introduced to 'catch the cheating' metaphysical theories.

Truthmaking and Presentism

Truthmaker has problems with Presentism – it is allegedly one such theory. If you're an eternalist <There will be outposts on Mars > is made true by the state of affairs of those outposts on Mars – spatiotemporally removed from us – existing. < Ghenghis Khan was a warlord > will be made true by the SoA of Ghenghis being a warlord. These things all exist!

The presentist has a harder time. Ghenghis is gone, there are no outposts. Surely, then, there are no such SoA to make these things true?

They also have a problem with the weaker claim that ‘truth supervenes on being’.

That is, if some things are true at w_1 and other things are true at w_2 what exists at those worlds and what those things are like has to be different.

That is weaker than Truthmaker. That principle just demands that if I’m a fisherman, I’m different at the world at which I’m a fisherman. Many think it’s intuitively true. That principle is a problem as take two worlds with radically different pasts. One world was built by aliens, who then annihilated themselves. The other world evolved naturally. Both are identical at this point in time. What exists, and what those things are like, are therefore the same. But the truths about the past (<There were aliens that designed Earth >) are different.

Options

Deny Truthmaker. Many do this – worrying about its motivation. Plus it has its own issues. What’s the truthmaker for ‘There are no arctic penguins’? They could also deny that truth supervenes on being.

Alternatively, they might try and find truthmakers. One example: claim that the world has the property of *having been such that Ghenghis Khan was a warlord*. So the SoA of the world – right now – having that property is the TMer for <Ghenghis Khan was a warlord>

Usually, people cry foul. The reason to endorse Truthmaker was to settle ontological questions. If you allow in SoA and properties like that, it can’t do it. The Phenomenalist could say that I have the property of *being such that if I turned left I would have a visual impression of a door*. No longer catching cheaters! No longer doing any serious ontological work! I’ll let you think about what happens in the analogous case of ‘Truth supervenes on being’.

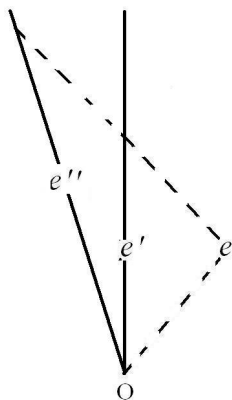
4. The Theory of Special Relativity

First, recall that there’s no way of telling whether you’re really at rest or going at 1000 m/s. Call that *Galilean Invariance*. We might draw from that fact that there’s no *fact of the matter* concerning how fast you’re ‘really’ going. Then, years after Galileo, Maxwell made a prediction. Calculated the speed of electromagnetic waves as ~300 thousand km/s. Not *relative* to anything – just that this was its speed. Allows us to ditch Galilean Invariance! Michelson-Morley did an experiment to find out how fast light was going relative to the Earth. Would then figure out the difference to find the Earth’s ‘real’ velocity. But whenever they measured it, it was 300th km/s.

This really weird!

Example: The whacky race.

Came up with Lorentz Contractions to account for it: when you move faster, you change shape and time appears to go slower for you. Imagine you travelled at 150th km/s and time slowed down by half. When you take the measurement the light would’ve travelled only 150th *but* you’d think it’d done it in ½ second. *Therefore:* The contractions conspire to keep you from knowing which frame is the rest frame.



What explained the contractions? Einstein came up with his theory of Special Relativity which did just that. Einstein *redefines* simultaneity.

How does this explain the contractions? It removes Lorentz’s assertion that time *appears* to be going slower when you go faster. According to Einstein, as you go faster what’s simultaneous with you changes so it doesn’t *just appear* to be that way, it *is* that way. So simultaneity and temporal ordering is relative to inertial frames – relative to how fast you’re going!

5. Presentist Problems III: Relativistic Problems

If relativity is true, presentists have a problem. What exists is what is present; what is present is what is simultaneous with me; what is simultaneous varies depending upon my inertial frame; so what exists depends on my inertial frame

It seems *weird* that what exists might vary like that. If John exists according to you, and I existing according to you, shouldn't John exist according to me? Given STR, maybe not if my velocity relative to you and John differ. So it breaks the transitivity of existence and it makes what exists relative to inertial frames.

Options

Can't deny the *predictions* of STR. They're true – deal with it.

But we might deny the *theory*. That is, a theory that predicts Lorentz Contractions etc. *without* taking simultaneity to be relative.

Examples: Tooley, Bourne.

Alternatively, we could bite some bullets. STR is really surprising – really weird. If you *really* think all that exists presently exists, maybe the whackiness of existence being relative is just a knock on effect of that. Don't blame presentism! Blame STR!

6. Presentist Problems III and a bit: Time Travel

Finally, connected to relativity, is a problem from time travel. Given relativity, it seems time travel is possible. But if presentism is true, and the past, and future doesn't exist, how can one go there? How can one travel to a destination that doesn't exist?

Example: Booking tickets for Gondor.