

Class #9 - The A-Theory  
Zimmerman, "The Privileged Present: Defending an 'A-Theory' of Time"

0. [Older](#); [Problems with time travel](#)

I. McTaggart's Series

About a century ago, the British idealist philosopher J.M.E. McTaggart argued that time was unreal. In order to make that argument, he relied on a distinction between two ways to understand time which he called the A-series and the B-series.

The A-series consists of temporal properties of events, like occurring in fifteen minutes, occurring last week, and occurring at this very moment, the present time.

The B-series consists of temporal relations between events: earlier-than, at the same time as, and later-than.

These two ways of understanding time are different.

But, McTaggart argued, on neither approach does our concept of time correspond to any real property or relation.

We will not pursue McTaggart's arguments, which support an idealism we have decided to ignore.

Instead, our approach will be to compare and contrast the A-series and the B-series to determine the best way to think about time.

Currently, we call theories of time based on the A-series A-theories and we call the properties in the A-series the A-properties.

We call theories based on the B-series B-theories and we call the relations in the B-series the B-relations. A-theories invoke temporal properties of events.

B-theories invoke temporal relations between events.

One salient difference between A-theories and B-theories that follows is that A-theories distinguish the present as a particular time property different from all others, from the past and from the future.

The B-theorist is indifferent among different times.

The A-theorist believes that the present time is in some way more important or more accessible or more real than other times.

In the Newton-Leibniz debate, we wondered whether we should be absolutists or relationalists about space.

Now, we want to know whether we should be A-theorists or B-theorists about time.

The option is always open to take a third option: neither.

In that latter case, the idealist alternative might return, for you.

II. Three A-Theories

Zimmerman defends the A-theory and identifies three versions of the A-theory:

1. The growing-block theory;
2. The moving spotlight theory; and
3. Presentism.

He defends presentism against the other two A-theory views.

Zimmerman sometimes fuses his defense of the A-theory against the B-theorist with his defense of presentism against other A-theories.

Only the A-theory can support presentism, so any claim for presentism is a claim against the B-theory. But, it might be good to try to keep these criticisms straight.

### III. The A-Theory Against the B-Theory

Zimmerman's central argument for presentism is intuitive.

It is simply *part of commonsense* that the past and future are less real than the present; that the difference between events and things that exist at present, and ones that do not, goes much deeper than the difference between events and things near where I am and ones that are spatially far away... (Zimmerman 221).

The commonsense approach to time to which Zimmerman refers is sometimes called the 'thank goodness that's over' view.

Imagine that I'm having a headache right now.

For ease of reference, let's call my headache Crash.

Crash has certain temporal properties or relations.

It began, let's say, a little while ago and will end a little while from now.

So Crash has one A-property of being several minutes old and another A-property of being only a few minutes away from ceasing to exist.

In an hour, Crash will have different A-properties.

Indeed, at every moment, it's A-properties are different.

From the B-theorist's point of view, Crash always has the temporal relations that it does because it is always related to other events in the same way.

It always comes before, say, the final exam for this class and after our high-school graduations.

In 1960, Crash was before the final exam for this class and after our high-school graduations.

In 2040, Crash will be before the final exam for this class and after our high-school graduations.

The temporal relations of any event are eternal, for the B-theorist.

The eternality of events, says the B-theorist, accommodates our best scientific theory of time, Einstein's theory of relativity.

According to the theory of relativity, reality consists of a four-dimensional space-time manifold.

One of the most important kinds of [spatiotemporal] structure is exhibited by sets of points that constitute a "straight line" running in a time-like dimension... But these lines are composed of points that must come from different instantaneous slices; so according to the presentist, when one of them exists, none of the others does. This leaves nothing to exhibit the important spatiotemporal structure of a straight line in a time-like direction (218-9).

In other words, there is nothing in contemporary physics that supports privileging the present over other times.

Still, according to the A-theorist, what's most interesting about Crash is that it is happening right now.

In 1960, Crash wasn't a very interesting event.

In 2040, Crash will be a not-very-interesting event.

But, right now, Crash is interesting.

After it goes away, I will be relieved.

I'll say something like, "Thank goodness that's over."

The relief that I will feel indicates that the present moment is more important than future or past moments.

Zimmerman claims that the presentist can maintain that present events are the only real ones while accepting that other time-slices of the spatiotemporal manifold still exist.

It is past and future *objects* and *events* that stick in my craw. The four-dimensional manifold of space-time points, on the other hand, is a theoretical entity posited by a scientific theory; it is something we would not have believed in, were it not for its role in this theory; and we should let the theory tell us what it needs to be like (219).

Furthermore, Zimmerman argues, there are lots of facts about the world that physics does not represent.

Physics only really commits to the existence of the most fundamental particles and relations.

Composite objects, like trees and people, are not really the subject matter of physics.

Only their component particles are.

So, we can't look to physics for all of our commitments.

Since the A-theorist privileges the present, picks it out as more important than other times, where the B-theorist is indifferent to the present, or any other particular time, it follows, according to Zimmerman, that the A-theorist has a more intuitive view of time.

There are at least three weaknesses of Zimmerman's argument against the B-theory.

First, the more-intuitive view is not necessarily the correct view.

For a long time, people believed that the sun revolving around the earth was more intuitive than the reverse.

People have had some pretty bad intuitions about moral facts, as well.

The last part of Zimmerman's article defends his method, but I won't pursue it here.

There is a lot more to say about it, some of which I engage in my *Intuitions and Philosophy* seminar.

Second, it is not clear that the A-theory is more intuitive, even if we grant the legitimacy of intuitions as a guide to truth.

Zimmerman considers an objection to the presentist version of the A-theory which relies on the counter-intuitive nature of denying that the past is just as real as the future.

"Point to something in the world," the objector says, "that *makes it true* that a dinosaur walked past this place 150,000,000 years ago. It *is* true, but there is nothing about the way the world is now that *requires* that it be true or that *makes* it true (218)

Zimmerman calls this objection the truthmaker objection.

A truthmaker might be thought of as a fact.

There must be facts which make propositions true or false.

Let's say that you think that there are beachballs.

You might believe that the sentence 'Some beachballs are red' is true.

For that sentence to be true, there have to be snowballs and there has to be some property of redness.

These are the truthmakers for the proposition that some beachballs are red.

In the other direction, let's say that you thought that the sentence 'God exists' is true.

Then there has to be a truthmaker for that fact.

The obvious truthmaker is God; an un-obvious truthmaker could be, say, Ray Charles. In the latter case, we would be re-interpreting the sentence to have a deviant (or metaphoric) interpretation of the word 'God.

Either way, you need something, and some interpretation, to make the proposition that God exists true. The truthmaker objection is that if you think that propositions about the past are true, as we ordinarily do, then there have to be some facts about the world that make them true. But, on presentism, there are no facts about the past, since only the present is real. So, presentism is false.

Zimmerman claims that the A-theorist has some sorts of resources to deal with the objection that privileging the present removes facts about the past. He claims that present events can have relations to past events even if those past events are no longer real. But, this view that real things can have relations to unreal things in the same, robust way that they can have relations to other real things seems counter-intuitive. So, our intuitions may not decide the matter.

Since we're marshaling intuitions, let's take a moment to consider time travel, like the travel we see in Heinlein's "All You Zombies."

In such stories, people travel between points in time as if they are really existent. There is thus a natural anti-presentist presumption about time in all time-travel stories. Heinlein notices some weirdness that arises from taking all moments in time to be equally real. The protagonist of the story ends up being her/his own parent. And weirder.

Here is a nice [diagram of the time-lines in the story](#).

It's probably not very scientific to base any conclusions about the nature of time on such ruminations about time travel.

But it does point to a weakness in Zimmerman's intuitive defense of the A-theory.

A third weakness of the arguments for presentism against the B-theory is that there are at least three different kinds of A-theories.

So, a defense of the A-theory against the B-theory is not in itself a case for Zimmerman's presentism. While all B-theories deny that the present has any special status, not all A-theories privilege the present equally.

To support presentism, Zimmerman has to defend it against other A-theories, ones which support privileging the present over other times to varying degrees.

Some of these other A-theories would be more intuitively consistent with the time-travel tales.

That is the purpose of the majority of Zimmerman's article.

#### IV. Moving Spotlights and Growing Blocks

A-theorists say that time is a property of individual events.

Presentists differentiate between the reality of the present moment and the unreality of past and future moments.

One could believe that time is a property of individual events, that time is not merely relational, without believing that the past and future are unreal.

So, not all A-theorists are presentists.

Zimmerman considers two alternative A-theories.

On the moving-spotlight theory, which Zimmerman attributes to Augustine, all temporal moments are equally real.

There is a kind of spotlight on the present which illuminates it.

But the spotlight doesn't change the present, make it more real or more important.

All moments are equally real, according to the moving-spotlight view.

We just see the present more clearly.

The advantage of the moving-spotlight theory is that it doesn't entail a constant process of creation and destruction.

According to the presentist, as events come into the present, they move from an unreal future state to a real present state: creation.

Then, as they move from being present to being past, they are destroyed.

And that is just what it is for an event or thing to "move" from the future into the present, and from the present into the past: It is to come into existence and then go out of existence (212-3).

In contrast, according to the moving-spotlight theory, all moments are equally real, and are not in a constant state of change.

The moving-spotlight theorist agrees with the B-theorist that we can, for the purposes of our beliefs about what exists in the world, treat all moments in time as equally real.

She differs from the B-theorist in believing that there are individual temporal properties of events.

We might take the past and present to be more real than the future; that's the growing-block account.

The growing-block theorist accepts the moving-spotlight account of the past.

They agree that the past is just as real as the present.

Once an event becomes present, it becomes real, and stays that way.

But the growing-block theory claims that future events are not real.

One consideration favoring the growing-block theory is that it leaves the future open.

The moving-spotlight and growing-block theorists agree that there is no difference between the past and the present in terms of the temporal properties we assign to events: events in the past and present have determinate times.

The growing-block theorist may be motivated by considerations about the indeterminacy of future events, by our intuitive feeling of freedom to decide the course of the future.

Zimmerman notes that some contemporary moving-spotlight theorists and growing-block theorists temper their claims about the reality of the past (and future, for the moving-spotlight theory).

A table yet-to-be-made has no shape or mass or color; and when it is destroyed, it will lack these properties as well (215)

Still, Zimmerman claims that any version of these two A-theories has to give up important claims about the differences between the present and other times.

Claims that the past is just as real as the present entail odd claims about the relationship between present events and past ones.

[These views have] less appealing consequences... Headaches can exist but not be truly painful; a horse can exist although it is not actually alive or even spatially located. What's left of these past

things is extremely thin: a physical object can survive a change in which it ceases to have any shape or size; an explosion can continue to exist when all its energy has dissipated (215-6).

Thus, Zimmerman defends presentism against these two views.

He holds tight to the claim that only the present is real, a claim which both the moving-spotlight theorist and the growing-block theorist deny.

When I notice that a headache, or some other painful episode, has become part of the past, I am relieved that this is so; and when a pleasant experience becomes past, I am often disappointed. If a theory of time makes such changes in attitude utterly mysterious, we should have grave doubts about its adequacy (214).

So, the question is whether the B-theory (or an A-theory which does not privilege the present) makes such changes utterly mysterious.

We will see more about this claim in our next class.