PRESENTISM AND ETERNALISM*

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Presentism and Eternalism are competing views about the ontological and temporal structure of the world, introduced and demarcated by their answers to questions about what exists and whether what exists changes. The goal of this chapter is to give the reader a clear understanding of Presentism and Eternalism, and a sense of some considerations used to critically assess the views by briefly rehearsing some of the main philosophical problems facing them.

Distinguish two pairs of related questions about the correct ontology of our world. First, two questions about what exists in time:

- (1) Do past entities (objects, events, etc.) exist?
- (2) Do future entities exist?

Second, two questions about whether, and to what extent, what exists in time changes:

- (3) Do entities begin to exist?
- (4) Do entities cease to exist?

With these questions in focus, we can give a preliminary characterisation of some main views in the philosophy of time, i.e., models of the ontological and temporal structure of our world (*cf*. Miller 2013: 345–8; 2023: 5–17). Here are two views demarcated by their answers:

Presentism

Do past entities exist? **No**. Do future entities exist? **No**. Do entities begin to exist? **Yes**. Do entities cease to exist? **Yes**.

Presentism says that only present entities exist; there are no past or future entities at all. Hence, it is always the case that everything is present. There exist no non-present entities whatsoever. Also, Presentism says that the correct ontology changes as time passes; some entities begin to exist (become present) and some cease to exist (cease to be present).

Eternalism Do past entities exist? **Yes**. Do future entities exist? **Yes**.

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Do entities begin to exist? **No**. Do entities cease to exist? **No**.

Eternalism says that past, present, and future entities exist. Present and non-present entities are all "equally real" on this view. Also, Eternalism says that the correct ontology does not change over time; entities do not begin to exist nor do they cease to exist. Typically, this view is taken to suggest a model of reality as a static "block" universe, i.e., a four-dimensional spacetime manifold that includes all times and their contents.

So construed, the views disagree primarily about what exists and whether what exists changes. In what follows, I explore both areas of disagreement in more detail, returning to and unpacking the answers to each pair of questions to help frame the debates.

Temporal Ontology

Consider our first pair of questions about what exists in time:

- (1) Do past entities exist?
- (2) Do future entities exist?

To answer these questions is to take a position on the ontological status of the past and future. This is what is at issue in temporal ontology (*cf.* Deng 2018).

Debates in temporal ontology are intended to be substantive disputes about what exists in time, absolutely and unrestrictedly, akin to other ontological debates. (1) and (2) have the basic form "Do any *xs* exist?" It is sensible to proceed on the basis that all such questions are considered in light of a shared assumption about existence, such that all disputants have the same notion in mind and mean the same by "exist" when they answer and assert "*xs* exist" or "*xs* do not exist." Here many assume that existence is univocal and there is one fundamental sense of "exists" captured by the existential quantifier of first-order predicate logic (Sullivan 2012: 150; Ingram 2019: 16), sometimes presented as "existence *simpliciter*" (Deng 2018: 794). Hence:

Presentism

Do past entities exist *simpliciter*? **No**. Do future entities exist *simpliciter*? **No**.

Eternalism

Do past entities exist *simpliciter*? **Yes**. Do future entities exist *simpliciter*? **Yes**.

Presentism says that only present entities exist *simpliciter*; Eternalism says that past, present, and future entities exist *simpliciter*. (Presentism does not merely say that "only present entities *exist now*," which eternalists also accept.) Presentists and eternalists disagree about what exists *simpliciter*. Eternalists think that (e.g.) dinosaurs, Roman Emperors, and Mars outposts exist; presentists deny that there are any past or future entities at all.

This is the crux of what is a substantive ontological dispute. Presentists and eternalists alike agree that there exist present entities and, further, they can agree that entities *have existed* or *will exist*, but presentists (and not eternalists) deny any inferences of the form "if *x* existed, then *x* exists (*simpliciter*)" or "if *x* will exist, then *x* exists." Put differently, presentists and eternalists do not disagree about *history*, or the truth-value of tensed claims. At least, they do not disagree about such matters merely in virtue of Presentism or Eternalism. They disagree about *ontology*, or the truth-value of ontological claims, i.e., claims about what exists *simpliciter*.

Presentism and Eternalism are sometimes introduced in a way that emphasises the ontological disagreement by acknowledging the modal-temporal analogy (or, "world-time parallel") and contrasting the views with modal ontological theses. Presentism is the temporal analogue of *Actualism*, the modal thesis that "only actual entities exist *simpliciter*," and Eternalism is the analogue of *Possibilism*, the thesis that "non-actual entities exist *simpliciter*" (see, e.g., Emery 2019; 2020). Actualism and Possibilism, like Presentism and Eternalism, can be viewed as answers to the basic question, "Do any *xs* exist?" —that is, "Do non-actual entities exist?" rather than "Do non-present entities exist? (Actualism does not merely say that "only actual entities *exist actually*.") The actualist-possibilist dispute regarding *non-actual* entities is akin to the presentist-eternalist dispute regarding *non-present* entities. The same notion of existence *simpliciter* is at issue in both. By drawing this comparison, we can reinforce the belief that the ontological aspect of the presentist-eternalist dispute is in good-standing, i.e., it is a genuine, substantive ontological disagreement, since the same is true of the actualistpossibilist dispute.

The fact that presentists and eternalists can agree about history and yet disagree about ontology invites further consideration. Distinguish two claims—one ontological, one historical:

- O. The Library of Alexandria exists *simpliciter*.
- H. The Library of Alexandria existed.

Presentists and eternalists disagree about O. Eternalists say that O is true; presentists demur. The Library of Alexandria does not exist now; therefore, it does not exist at all, according to Presentism. But presentists and eternalists can (and do) agree about H. More precisely, they can agree about the *truth-value* of H. Yet the fact that they disagree about O suggests that they must disagree about the proper logical form of H (and other such claims), such that H does not entail O. Taking a step back: some might worry that the appearance of widespread agreement over the truth of historical claims might connote that there is no genuine disagreement over ontological claims. The idea to draw out here is that there is genuine disagreement over O (and other such claims) since there is disagreement over (e.g.) H as well.

One way to view the underlying disagreement, in light of historical claims, is as a disagreement over whether the proper understanding of H involves genuine quantification over non-present entities. (There is ontological commitment only if there is genuine quantification.) Eternalists say that the proper logical form of H involves genuine quantification over a past entity. E.g.:

H_E. The Library of Alexandria exists earlier than now. $\exists x (Lx \& Ext)$ Let 'L' be the one-place predicate, '...is the Library of Alexandria' and 'E' the two-place, '...is earlier than...' with 't' as a singular term denoting the time of utterance ('now'). Eternalists can say that H_{E} is the proper form of H and that it entails O (*viz.*, $\exists x Lx$).

By contrast, presentists can say that H does not involve genuine quantification. Instead, they can insist that the proper logical form of H involves a primitive past-tense operator, with any quantification occurring within the scope of that operator. E.g.:

H_P. It was the case that: the Library of Alexandria exists. WAS $(\exists x Lx)$

Let 'WAS' be the operator, 'It was the case that...'. Presentists can say that H_P is the proper form of H, that H_P is not equivalent to H_E , and that H_P does not entail O. Crucially, there is no genuine quantification over past entities in H_P and, as such, no ontological commitment (*cf.* Emery 2020: 25–27).

In sum, Presentism and Eternalism disagree about what exists *simpliciter*. The disagreement about whether there are non-present entities is not dissolved by pointing to the fact that the disputants agree about the truth-value of claims about the past and future since presentists and eternalists disagree about the proper logical form of such claims.

Ontological Change

Recall our second pair of questions about whether what exists in time changes:

- (3) Do entities begin to exist?
- (4) Do entities cease to exist?

To answer these questions is to take a position on the reality of ontological (or, "substantial") change and, in turn, on whether reality itself changes with respect to what exists *simpliciter*. The questions concern whether there is objective "becoming" (entities coming into being), or "cessation" (entities ceasing to be). Ontological change, so understood, is not mere qualitative (or, "accidental") change. That is, it is not merely change with respect to an object's properties, relations, or parts. It is change in whether or not an object exists *simpliciter*.

Either there is ontological change or there is not; either some entities change with respect to existence or nothing changes in this respect. With this simple dichotomy, we can introduce opposing principles:

Permanent Existence

Everything always exists. Nothing changes with respect to existence.

Temporary Existence

Some entities change with respect to existence. (Sullivan 2012: 152)

Eternalism says that past, present, and future entities exist *simpliciter*. As noted, this view suggests a static "block universe" model, i.e., reality is a four-dimensional spacetime manifold constituted by past, present, and future times, events, and objects. Eternalism, so understood, entails Permanent Existence (Sullivan 2012: 152). There is no objective becoming, nothing begins to exist, and no objective cessation, nothing ceases to exist. Everything that exists in time exists somewhere in the manifold. Eternalism is not the view that, for any *x*, if *x* exists (at any time), then *x* exists at all times. It is not the case that every entity exists at every time. Instead, every entity occupies some region of the spacetime manifold and occupies that region eternally. Eternalism entails that there is no ontological change because the sum total of what exists *simpliciter* does not change.

Presentism says that only present entities exist *simpliciter*. By itself, this ontological claim does not entail anything in particular about ontological change. But Presentism is not intended as a view according to which everything is "instantaneous," or that everything exists eternally, frozen in one point-sized moment of time. Presentism says that what is present changes; what exists *simpliciter* changes (Miller 2013: 346; Leininger 2015: 725–6; Deng 2018: 800; Ingram 2019: 20–23). The correct ontology changes, i.e., the sum total of what exists changes, with entities beginning and ceasing to exist. There is objective becoming *and* cessation on this view. Presentism accepts Temporary Existence (*cf.* Sullivan 2012: 152–3; Miller 2023: 9–10).

In sum, Presentism and Eternalism disagree about whether the correct ontology changes, i.e., whether what exists *simpliciter* changes. Presentism says that the correct ontology changes as time passes; reality itself changes with respect to what exists *simpliciter*. Eternalism says that the correct ontology does not change; reality does not change in this respect.

Aside: Dynamic vs. Static

One relevant distinction between theories in the philosophy of time is whether a theory is taken to be a "dynamic" theory of time or else a "static" theory (see Emery *et al.* 2020: §8). Typically, Presentism is presented as a dynamic theory and Eternalism as a static theory. With Presentism and Eternalism introduced and demarcated by answers to questions (1)-(4), more needs to be said to explore what the dynamic-static distinction is tracking and how it applies.

One way to unpack the distinction turns on whether a view says that reality itself changes and, therefore, that "time is dynamic" (*cf.* Dyke 2021: 3). A dynamic theory says that reality changes and time is dynamic; a static theory says that reality does not change and time is not dynamic. Consider the debate around ontological change, *viz.*, answers to questions (3) and (4). Presentism is a dynamic theory because it says that reality itself changes with respect to what exists; therefore, time is dynamic (Dyke 2021: 27). Eternalism can be construed as a static theory because it says that reality does *not* change with respect to what exists. But matters are not so simple. It is more accurate to say that, under Eternalism, time is not dynamic in one respect, given Permanent Existence. It is an open-question whether reality changes in *any* respects under Eternalism (*cf.* Dyke 2021: 26–27; Miller 2013: 346–7), and whether Eternalism must be construed as a static theory. According to the standard "*B-theoretic*" conception of Eternalism, reality itself does not change at all, though there might be qualitative change in objects.

We can draw a distinction between *B-theoretic* Eternalism and *A-theoretic* Eternalism. Begin with the block universe model of reality suggested by Eternalism. There are two familiar ways of theorising about the temporal structure of this sort of world. Consider the events that constitute the block universe. How are such events ordered in time? We can say that some events are objectively *present*, other events are *past*, and others are *future*. E.g., the event of Caesar crossing the Rubicon is objectively *past*, the event of you reading this paper is *present*, and the event of the first human walking on Mars is *future*. We can suppose that such events exemplify "A-qualities" (properties) of *pastness*, *presentness*, and *futurity*. Call the series of events ordered this way the "A-series." Alternatively, we can say that some events are *earlier than* other events, and some events are *later than* others. E.g., Caesar's crossing is *earlier than* your reading, the Mars walking is *later than*, or *contemporaneous with* other events. Call the series of events ordered this way the "B-series." This familiar distinction underlies two broad theories: the "A-theory of time," according to which the A-series is the fundamental ordering and there is no objective present, and the "B-theory of time," according to which the B-series is fundamental and there is no objective present (*cf*. Dyke 2002: 137–8).

Typically, Eternalism is paired with B-theory. (See Cameron and Deasy, this volume, for a version of Atheoretic Eternalism: the "moving spotlight" theory.) B-theoretic Eternalism is a static theory because it entails that reality itself does not change and, therefore, that time is not dynamic. There are two ways that reality might change. Either reality changes with respect to what exists *simpliciter*, or reality changes via its fundamental order, including change in which events are objectively present. Eternalism, by itself, rules out the former, i.e., Eternalism entails that there is no ontological change (Permanent Existence). B-theory rules out the latter. There is no change in a B-series ordering because B-relations are permanent temporal determinations; B-series facts (e.g., the fact that Caesar's crossing is *earlier than* you reading this paper) are fixed and eternal (Dyke 2002: 139). Reality itself never changes with respect to such facts. Hence, B-theoretic Eternalism is a static theory of time.

In what follows, I use "Eternalism" to refer to this standard, static B-theoretic Eternalism. And, in what remains of the chapter, I rehearse problems facing Eternalism and Presentism.

Problem for Eternalism: Change

One problem for Eternalism stems from its claim that there is no ontological change and, in turn, that reality itself does not change, given B-theory. It strikes many that there is change or, rather, that change occurs in several ways. As Sally Haslanger puts it:

Things change: objects come into existence, last for awhile, go out of existence, move through space, change their parts, change their qualities, change in their relations to things. All this would seem to be uncontroversial. (2003: 315)

There are many potential examples involving material objects that change over time. Consider a banana plant that bears fruit and one banana as it grows and ripens. Before the plant fruits, the banana does not exist. Then, something new comes into being, the banana begins to exist. Time passes; the banana grows. As it grows, its mass increases, its shape alters, and so on. More time passes; the banana ripens. As it ripens, its colour changes;

initially the banana is green, later it is yellow. The banana is the same object throughout its changes, that is, it persists through time ("lasts awhile"), until it ceases to exist. Setting aside interesting questions about change and persistence, i.e., how it is that an object persists through changes (see Hawley 2001; Haslanger 2003; Goswick 2013; Miller 2022), the claim that changes occur in several ways is entirely plausible.

And yet, at first pass, Eternalism seems inconsistent with some (perhaps all) of the ways that things are said to change. Eternalism entails that objects do not "come into" or "go out of" existence, given Permanent Existence. If Eternalism contradicts a truism ("things change"), then Eternalism is in trouble.

Here is an argument against Eternalism:

- C1. Change occurs.
- C2. Eternalism entails that it is not the case that change occurs.
- C3. Therefore, Eternalism is false. (C1, C2)

The argument looks valid. If Eternalism entails a falsehood, then it is false. But what can be said for the premises? As Haslanger has it, the claim that change occurs (or, "things change") seems uncontroversial. Hence, C1 is safe. But what about C2? What can be said for the claim that Eternalism entails that change does not occur? The initial justification is that Eternalism entails that change does not occur because, given Eternalism, reality itself does not change. However, this line of reasoning assumes that change occurs *only if* reality itself changes. But this might assume too much. Plausibly, some changes are merely changes in objects and not changes in reality as a whole.

Eternalists can respond as follows. Change occurs if an object has incompatible properties at different times (Dyke 2002: 139). E.g., the banana changes from being green all over at a time to being yellow all over at another time. If Eternalism is consistent with objects having incompatible properties at different times, then Eternalism does not entail that change does not occur (and C2 is false). The crux is whether this is enough to establish that Eternalism does not contradict the apparent truism that "things change."

It is open to opponents to press that Eternalism cannot account for (qualitative) change in objects for one reason or another, that is, to develop arguments for C2. Further discussion of such options would take us too far afield. (For more on persistence, see Eagle, this volume. For more on change and contradiction, see Priest, this volume.)

Problem for Eternalism: Fatalism

Eternalism says that past, present, and future entities exist *simpliciter*. Future objects and events exist, located somewhere in the block, just as past objects and events exist. Past and future are ontologically on a par. One problem for Eternalism flows from this conception of the future. Plausibly, if the future exists, it is fixed (i.e., settled, determinate, cannot be changed). For any possible future event, *f*, either *f* exists in the block or it does not; if *f* exists, then it is settled that *f* will happen, and if *f* does not exist, then it is settled that *f* will not happen. That is, Eternalism entails Fatalism, the view that "whatever will happen in the future is already *unavoidable*" (Emery *et al.* 2020: §1). Some think that Fatalism is false and the future is "open" (i.e., unsettled, indeterminate,

can be changed); others think that Fatalism is a significant cost. In either case, if Eternalism entails Fatalism, then Eternalism is in trouble.

One standard argument for Fatalism turns on whether there are truths about the future. Suppose that there are propositions about everything that might happen in the future and that every proposition is either determinately true or else false (i.e., there are no truth-value "gaps"). With these suppositions, the argument proceeds via the claim that if there is now a set of truths that correctly describe everything that will happen, then whatever will happen in the future is settled and unavoidable (Emery *et al.* 2020: §1). Consider a proposition about the future (where '' denotes the proposition that *p*), e.g., <humans will colonise Mars in 2377AD>. If it is now determinately true, then what will happen (the future event described) is settled; it cannot be changed. And so on for every truth about the future. This is Fatalism.

Eternalism faces a problem here because it seems that the eternalist cannot reasonably deny that there is a set of truths about the future, given initial suppositions. Indeed, the fact that all future entities exist seems to entail that there are truths about the future.

Here is an argument for Fatalism, given Eternalism:

- F1. If there is now a set of true propositions that correctly describe everything that will happen in the future, then whatever happens in the future is settled.
- F2. If all future objects and events exist, then there is now a set of true propositions that correctly describe everything that will happen in the future.
- F3. All future objects and events exist. (Eternalism)
- F4. Therefore, there is now a set of true propositions that correctly describe everything that will happen in the future. (F2, F3)
- F5. Therefore, whatever happens in the future is settled. (F1, F4)

The argument is valid and the premises are plausible. One option for the eternalist is to accept that the argument is sound (to "bite the bullet" and accept Fatalism), but to resist the suggestion that this is problematic. If Fatalism is false, this is a non-starter. But if the objection is that Fatalism is a cost, eternalists can demur (e.g., Miller 2013: 356–8; 2023: 33–38).

Problem for Presentism: Relations

Presentism says that only present entities exist *simpliciter*; non-present entities do not exist. Many opponents target this ontological thesis and argue that we must accept the existence of non-present entities, and reject Presentism, to explain or accommodate certain facts.

One main problem of this sort flows from the claim that there are "cross-temporal" relations, i.e., relations that obtain between present and non-present entities, combined with the principle that relations entail the existence of relata (Brogaard 2006: 194–5). E.g., I admire Penelope Mackie, admiration is a relation and, sadly, Penelope is non-present. Or, yesterday's signing of the treaty caused today's disarmament, causation is a relation, and

so on. If cross-temporal relations obtain, and all relations are existence-entailing, then non-present entities exist, contra Presentism. The argument goes as follows:

- R1. Relations are existence-entailing.
- R2. There are relations between present and non-present entities.
- R3. Therefore, non-present entities exist. (R1, R2)
- R4. Therefore, Presentism is false. (R3)

To defend Presentism, one must reject a premise. But the problem is not so easily dissolved. It seems that giving up on either premise incurs a cost. For instance, one might deny R1 and assert that relations do not entail the existence of their relata. But this means rejecting a plausible principle about relations and, perhaps, accepting that non-existent entities are "real" in some sense. (One who assumes that existence is univocal and there is a fundamental sense of "exists" captured by the existential quantifier, but who accepts that non-existent entities can exemplify properties and stand in relations, owes some account of how this fits together.)

Alternatively, one might deny R2 and assert that apparent cross-temporal relations are not relations involving non-present entities. One option is to defend a view according to which apparent cross-temporal relations are relations between present entities instead. For instance, in the case of admiring Penelope Mackie, one can reinterpret this as a relation between me and a cluster of present properties once instantiated by Penelope, e.g., being wise, patient, quick-witted, etc. Or one might propose that there exists a present non-concrete "proxy" or "surrogate" for each non-present entity (*cf.* Emery 2017: 1–3), and assert that (e.g.) I stand in the admiration relation to a present proxy for Penelope. But this strategy means rejecting the plausible claim that there are cross-temporal relations. And, in turn, putative relations between present entities do not seem to capture fully the cases described. E.g., I think that I admire Penelope, the non-present philosopher, not some property cluster or a non-concrete proxy (*cf.* Emery 2017: 8–9).

Problem for Presentism: Truth-Makers

A related problem facing Presentism concerns how to account for truths about past entities, e.g., <there were dinosaurs>, given that past entities do not exist. One well-discussed version of this problem stems from a claim about the nature of truth, called the "truth-making intuition." As Karen Bennett puts it:

what is true depends upon how the world is. Truth—or, better, truth-*value*—depends on being. I find this intuition very plausible. After all, what's the alternative? That truth *floats free* of being? Surely that's the kind of thought that leads to berets, and a job in a bad Comp Lit department. (2011: 187)

Suppose that one accepts that truth substantively depends upon being, that what is true depends upon what exists (i.e., the truth-making intuition). One way to develop this idea is to say that, for each true proposition P, there is some entity, E, such that P depends upon E for its truth, that is, P is true *in virtue of* E. (E is the "truth-maker" for P.) Consider, e.g., the true proposition that Fido is a dog. The truth of <Fido is a dog> is not primitive; it is true *because* the world is some way, *because* things exist and facts obtain (i.e., there is an x, such that x = 'Fido' and x is a dog), and it would be false if the world were different in relevant respects (e.g., if it were not the case that there is an x, such that x = 'Fido'). Here one might assert reasonably that the truth-maker

for <Fido is a dog> is some existing fact (or "state of affairs") constituted by Fido, *viz.*, the fact that Fido is a dog. Indeed, it seems unreasonable to assert that the truth-maker could be anything other than some fact involving Fido; intuitively, it is not merely that truths do not "float free" of being, but that truths depend upon relevant parts of being. <Fido is a dog> is made true by the fact that Fido is a dog, a relevant part of being, and not (e.g.) the fact that Tibbles is a cat, an irrelevant part.

The problem facing Presentism, given the truth-making intuition, can be sketched as follows. Suppose <there were dinosaurs> is true. What exists to explain its truth? What is the relevant truth-maker? The obvious truth-maker is a fact involving dinosaurs, i.e., a fact that is partly constituted by past entities, which do not exist, given Presentism. But the proposition is true; therefore, it has a truth-maker, given truth-making. If the truth-makers for truths about the past are past entities or facts involving past entities, then Presentism is false (see, e.g., Emery 2020: 28–31; Ingram 2019: 105–11).

This problem can be represented as an argument:

- T1. There are truths about the past.
- T2. Each truth is made true by some existing entity.
- T3. The truth-makers for truths about the past are past entities.
- T4. Therefore, some non-present entities exist. (T1, T2, T3)
- T5. Therefore, Presentism is false. (T4)

The argument is valid. That is, the premises (T1-T3) jointly entail that non-present entities exist as truth-makers for truths about the past. To defend Presentism, one must reject a premise. But, in each case, giving up on a premise seems to incur a cost.

Our starting point is the claim that there are truths about the past, e.g., <there were dinosaurs>, <the banana was green>, etc. For many, this premise is either a non-negotiable dictum or else something that we should not deny unless prepared to abandon common sense. Further, it seems that presentists are committed to truths about the past to make sense of ontological change. Recall, presentists say that what exists changes as time passes. Some entities *have existed*, but do not *exist now* (and, therefore, do not exist *simpliciter*). Hence, presentists are committed to truths of the form: for a past entity *x*, *x* has existed (or it was the case that: *x* exists). If presentists deny that there are truths about the past, they owe another account of how to make sense of the ontological change at the heart of Presentism.

Presentists are not required to accept T2 or T3, simply *qua* presentist, but they might take the underlying claims about truth to be plausible. T2 is a truth-maker principle, one way to capture the truth-making intuition that truths substantively depend upon what exists. T3 expresses the idea that truth-makers are relevant parts of being, such that truth-makers for truths about past entities are facts involving the past entities themselves. One of these premises must be rejected to defend Presentism from this truth-maker problem.

One who accepts the truth-making intuition might still question T2. Is it the case that *every* true proposition is made true by an entity? Perhaps we can deny that *all* truths require truth-makers without violating the core of truth-making. One might judge that some truths do not require truth-makers, such as truths about *what*

there is not (i.e., true negative existential propositions, e.g., <there are no unicorns>). Presentists can take this approach and argue for a restricted truth-maker principle, which does not entail that truths about the past require truth-makers, perhaps arguing that truths about the past are analogous to negative existentials. But, plausibly, presentists would still owe some account of the truth of such propositions.

Alternatively, one who accepts the truth-making intuition in an unrestricted way (accepts T2) might reject T3 and attempt to locate presently existing truth-makers for truths about the past. For instance, presentists can argue that the world, a present entity, now instantiates tensed properties, such as *having contained dinosaurs*, *having contained Caesar crossing the Rubicon*, etc., and that the truth-maker for (e.g.) <there were dinosaurs> is the fact that the world now instantiates *having contained dinosaurs*. This is one illustrative option but others are available. However, in each case, the opponent can press that these are not acceptable truth-makers for one reason or another. Perhaps only the past will do.

Coda

If this chapter succeeds, you will understand Presentism and Eternalism and have a sense of some considerations used to assess the views. But there are problems for each that go beyond what can be covered here. One problem to escape us, which must not escape mention, is that Presentism is apparently inconsistent with physical theories, in particular, special relativity (see Hawley 2009; Miller 2013: 352–4; Emery 2019). This problem is nuanced and warrants a chapter itself. Helpfully, this volume includes a section on "Time and Physics" to help the interested reader draw together threads from the metaphysics and physics of time. (See Demarest, this volume, on time and special relativity.)

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