

The Triviality of Presentism

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Many philosophers believe there to be a fundamental difference between the *present* and past and future times, but they tend to disagree amongst themselves about what this difference is. Some think that the present is singled out by consciousness, while others believe that it marks the position to which the flow of time has advanced. According to presentism, the current moment is *ontologically* privileged:

(P) Nothing *exists* that is not present.

My aim in this chapter is to argue that this particular attempt at distinguishing the present from other times is unsuccessful. I hold similar views about the other proposals, but that is not something I shall argue for here.

Opponents of presentism—the so-called “eternalists”—often object that the presentist thesis (P) is incompatible with the theory of relativity, or that endorsing it would leave us unable to account for causal and other cross-temporal relations.¹ In my view, the main problem arises much earlier. The *triviality objection* to presentism contends (i) that (P) is ambiguous between different readings of the ‘exists’ that occurs in it, and (ii) that none of the possible disambiguations succeed in saying something that is both non-trivial and true. There is no substantial metaphysical thesis that needs to be refuted by a sophisticated argument.²

1 The Presentist’s Dilemma

In trying to understand the thesis, an obvious possibility is to read the ‘exists’ in (P) as the ordinary present tense of the verb *to exist*:

(P1) Nothing *exists now* that is not present.

¹Part 2 of this volume discusses these objections in more detail.

²Versions of this objection can be found in Lombard (1999; 2010), Callender (1998), Meyer (2005), and Savitt (2006). See also Dorato (2006).

This thesis is true, but trivial. Since being present and existing now amount to the same thing, (P1) merely notes that everything that exists now, exists now. Everybody has to accept *this* thesis, irrespective of their views about the metaphysics of time. Of course, accepting (P1) does not preclude the possibility that the present is special in some other way. For instance, if it were true that the present is singled out by consciousness then presently existing objects would be those objects that are “lit up by consciousness.” But the difference between them and past and future objects would not be ontological in nature.

Since presentists clearly intend to advance a substantial thesis about time and existence, it seems safe to assume that (P1) is not what they have in mind. So what could they mean? The apparent problem is that (P1) interprets the ‘exists’ in so narrow a sense that existence analytically entails presence. To get a non-trivial reading, we need a notion of existence whose definition does not already exclude non-present objects. Let us therefore say that an object exists *temporally* if and only if it either has existed, does exist now, or will exist. With ‘exists’ read in this broader sense, the presentist thesis becomes:

(P2) Nothing *exists temporally* that is not present.

This thesis is non-trivial, but it is also clearly false. Here is a counterexample:

(JC) Julius Caesar crossed the Rubicon.

Because non-existent people cannot cross rivers, this claim can only be true if Caesar existed. But if Caesar did exist then he does exist temporally. And since he does not exist now, this means that there is an object, namely Caesar, that exists temporally without being present. Given that (JC) is true, the thesis (P2) is false.

If (P1) and (P2) are the only ways of disambiguating P—as I claim they are—then presentism is either trivially true or obviously false. This means that there are two ways of being an eternalist. One option is to define eternalism as the negation of (P). In this case, eternalism would be either trivially false or obviously true, depending on which of the two readings of (P) we adopt. A more interesting way of being an eternalist is to recognize the triviality of (P), and to argue that all times are metaphysically on a par. I am an eternalist in this latter sense, for I believe there to be *no* principled difference between the present and past and future times.

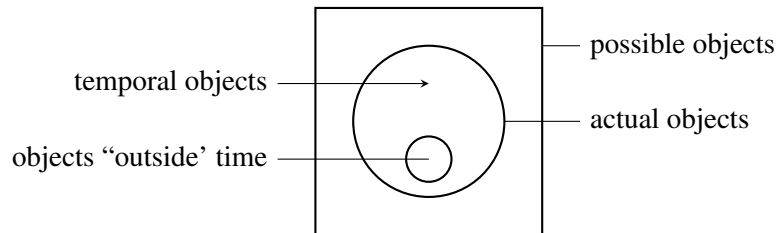
2 Existence Simpliciter

Some authors argue that the choice between (P1) and (P2) presents a false dilemma because both readings appeal to tensed notions of existence. It is a feature of English syntax that we cannot attribute existence to an object without committing ourselves, by our choice of tense for the verb *to exist*, to a past, present, or future

time at which the object exists. To circumvent this problem, some presentists want to separate the tense from the verb, and then employ the resulting tenseless notion of *existence simpliciter* to spell out the presentist thesis:³

(P3) Nothing *exists simpliciter* that is not present.

There is some debate about whether such a de-tensing is possible, but that is not something we need to worry about here. Take *any* candidate for the notion of existence simpliciter, and suppose that some object *a* exists in this sense (whatever it may be). Then *a* is either an actual object or a merely possible object (if there are such objects). And if *a* is actual then it either exists at some time, or it exists at no time (“outside” time, if that is possible). But if *a* exists *at* some time then it either has existed, does exist now, or will exist, and thus does exist temporally.



Quite independently of our account of existence simpliciter, this means that the following conditional is necessary because its consequent exhausts all the ways in which *a* could exist:

a exists simpliciter \rightarrow (a is merely possible \vee a is “outside” time \vee a is temporal)

Existence simpliciter could only go beyond temporal existence if it included some objects outside time, or some objects from other possible worlds. And while both of the following might be non-trivial, neither is a presentist thesis:

(P4) Nothing *is merely possible* that is not present.

(P5) Nothing *is “outside” time* that is not present.

Thesis (P4) is a roundabout way of denying the existence of merely possible objects and (P5) is a way of rejecting objects outside time. Neither specifies a way in which the present differs from other times. For assessing presentism, temporal existence is therefore already the most general notion of existence that needs to be considered. No matter how we spell out the details of the proposal, an appeal to existence simpliciter does not expand the range of options.

³See, e.g., Hestevold and Carter (2002), Ludlow (2004), Szabó (2006), Sider (2006), and Wüthrich (forthcoming).

Hence the only available disambiguations of the presentist thesis are the trivially true (P1) and the obviously false (P2), plus intermediate positions that provide different combinations of the unappealing features of (P1) and (P2). (This could happen if our notion of existence simpliciter is more restrictive than temporal existence, but also more permissive than present existence.)

3 Quantified Tense Logic

Many readers will be familiar with the difficulties that emerge when trying to combine modal operators and quantifiers in a quantified modal logic. Since similar complications arise for the interaction between tense operators and quantifiers, one might argue that the status of presentism can only be settled by our best quantified tense logic. Indeed, it is sometimes suggested that the debate between presentists and their opponents is really about whether we should adopt a tensed or a tenseless account of quantification. I do not think this is correct, but attending to these issues does help to clarify what is at stake in the debate.

Consider a tense logic with two primitive tense operators P (“it was the case that”) and F (“it will be the case that”). The dual operators H (“it was always the case that”) and G (“it will always be the case that”) are defined as abbreviations for $\neg P\neg$ and $\neg F\neg$, respectively. Similar to the modal case, where sentences without modal operators are used to make claims about what is actually the case, we use sentences without tense operators to make claims about what is presently the case. A system of tense logic is then said to be *normal* if and only if (i) it validates all instances of the axiom schemata $H(\varphi \rightarrow \psi) \rightarrow (H\varphi \rightarrow H\psi)$ and $G(\varphi \rightarrow \psi) \rightarrow (G\varphi \rightarrow G\psi)$, and (ii) is closed under the inference rule of temporal generalization:

If $\vdash \varphi$ then $\vdash H\varphi$ and $\vdash G\varphi$

(Here ‘ \vdash ’ stands for derivability in our system of tense logic.) In any normal system, the tense operators are guaranteed to be *monotone*:

If $\vdash \varphi \rightarrow \psi$ then $\vdash P\varphi \rightarrow P\psi$ and $\vdash F\varphi \rightarrow F\psi$

The minimal normal tense logic, which contains nothing beyond what is required for (i) and (ii), is often supplemented with additional axioms. For example, there are axioms that guarantee that the time series is dense, complete, or that it lacks branches (Burgess 2002). Since the status of presentism does not depend on which of these additional principles we accept, we can ignore these complications here.

When adding quantifiers to such a tense logic, there are two approaches to choose from. On a *tensed quantifier* view, the quantifiers have different domains at different times. At any given time, the quantifiers range over only those objects that exist then. On an *untensed quantifier* view, the quantifiers always range over the same domain of objects, which includes all objects that did, do, or will exist.

The main difference between these two approaches to quantification concerns the way they deal with existence. Tensed quantifiers allow us to *define* a time-relative existence predicate $E!$ in terms of quantification and identity:

$$(E) \quad E!x \leftrightarrow \exists y x = y$$

This does not work with untensed quantifiers. In that case, every object in the unrestricted domain satisfies the condition on the right-hand side of (E), not only those that exist at the time under consideration. This means that systems with untensed quantifiers not only separate quantification and *tense*, they also separate quantification and *existence*. To express time-relative existence claims, they need a primitive existence predicate that is logically independent of quantification.

If we adopt untensed quantifiers then we can obtain a complete axiomatic system for our logic by combining standard axioms for tense operators with standard axioms for quantifiers and identity, plus two tensed Barcan formulae to account for the interaction between quantifiers and tense operators (Meyer 2011: sec. 4):

$$(TBF) \quad P\exists x \varphi \leftrightarrow \exists x P\varphi \quad F\exists x \varphi \leftrightarrow \exists x F\varphi$$

Such a quantified tense logic allows us to distinguish two types of predicates. Some predicates—such as ‘has mass one kilogram’ or ‘crosses the Rubicon’—are *existence-entailing* in that they can only be truly attributed to objects at times when they exist, and thus fall within the extension of the (primitive) existence predicate. Existence-entailing predicates work like the predicates in standard first-order logic, but a quantified tense logic with untensed quantifiers can also admit predicates that are not existence entailing. For example, Vincent van Gogh is famous *now*, but he was not famous while he existed, which means that the predicate ‘is famous’ is not existence-entailing.⁴

The logic of tensed quantifiers is far more complicated. Since quantifiers and tense operators are only guaranteed to commute if the domain of quantification does not change over time, we would have to give up the tensed Barcan formulae. Also in this case, the question arises whether predicates may be attributed to objects at times at which they do not exist. If we prohibited all such attributions then our tense logic would remain fairly simple, but it would lack the resources to express many otherwise unproblematic claims about presently non-existing objects. Yet

⁴A more detailed discussion of existence-entailing predicates can be found in Prior (1967: 161), Woods (1976), and Cocchiarella (1968; 1969). As introduced by Plantinga (1983), *serious actualism* is the view that objects do not have properties in worlds in which they do not exist. Similarly, some authors defend a *serious presentism*, according to which objects do not have properties at times at which they do not exist. See, e.g., Bergmann (1999) and Davidson (2003). I shall not discuss this view here because I agree with Hinchliff (2010) that serious presentism is independent of presentism, as it is usually construed, and that it is not particularly plausible in its own right.

if we do admit attributions to non-existent objects then we can only retain tensed quantifiers if we also restrict existential generalization. It is now true that van Gogh is famous, but from that alone it does not follow that someone exists now who is famous. If we adopt tensed quantifiers then we need to modify the *quantificational* part of our logic, and that turns out to be a rather messy undertaking. In particular, we can no longer obtain a complete system of quantified tense logic by combining *standard* axioms for tense operators with *standard* axioms for quantifiers.

However, it is doubtful whether this extra work would be worth the effort. Systems of quantified tense logic with untensed quantifiers are bound to remain unsatisfactory in other respects. For example, Hans Kamp (1971) argues that a tense logic with tensed quantifiers cannot express all temporal claims unless it also contains a two-dimensional “now” operator N . This two-dimensional tense operator is governed by the stipulation that $N\varphi$ is true at a time if and only if φ is true at the present time. Frank Vlach (1973) defends a similar claim about the two-dimensional “then” operator. As I show in Meyer (2009), though, we do not need either operator if we use untensed quantifiers. This suggests that a quantified tense logic with untensed quantifiers has superior expressive resources.

4 Untensed Quantifiers

It is not obvious which of these two approaches to quantification presentists ought to prefer. Tensed quantifiers might be in line with their stated aim of “taking tense seriously,” but untensed quantifiers are a more plausible candidate for the notion of existence simpliciter. In the end, though, none of this matters, for it turns out that *neither* account of quantification helps presentists evade the triviality objection.

Suppose we adopt untensed quantifiers. Then the existence predicate $E!$ expresses a tensed notion of existence and the existence quantifier \exists an untensed notion of existence simpliciter. The three readings of the presentist thesis could therefore be formalized as follows:

- (P1) $\neg\exists x(E!x \wedge \neg E!x)$
- (P2) $\neg\exists x((PE!x \vee E!x \vee FE!x) \wedge \neg E!x)$
- (P3) $\neg\exists x\neg E!x$

This adds a layer of formal sophistication to our discussion without doing anything to improve the lot of presentism. Thesis (P1) is still a logical truth and (P2) obviously false. The status of (P3) depends on whether our tense logic validates $\forall x(PE!x \vee E!x \vee FE!x)$. If it does, then (P3) reduces to (P2). If it does not, then (P3) is either not a presentist thesis (by denying the existence of some non-temporal objects), or it combines aspects of the trivially true (P1) and the obviously false (P2).

But this regimentation does allow us to take a closer look at the inferential steps one needs to take to get from the truth of (JC) to the falsity of (P2). Let us

abbreviate “crosses the Rubicon” as ‘*R*’ and let ‘*c*’ be a name for Julius Caesar. Then the argument against (P2) proceeds as follows:

- | | | |
|----|--|---------------------------------|
| 1. | PRc | Caesar crossed the Rubicon |
| 2. | $\neg E!c$ | Caesar is dead |
| 3. | $Rc \rightarrow E!c$ | <i>R</i> is existence-entailing |
| 4. | $PRc \rightarrow PE!c$ | 3, monotonicity of P |
| 5. | $PE!c$ | 1, 4, modus ponens |
| 6. | $PE!c \vee E!c \vee FE!c$ | 5, truth-functional logic |
| 7. | $(PE!c \vee E!c \vee FE!c) \wedge \neg E!c$ | 2, 6, truth-functional logic |
| 8. | $\exists x((PE!x \vee E!x \vee FE!x) \wedge \neg E!x)$ | 7, existential generalization |

Presentists might object to the existential generalization from line 7 to line 8. Since the singular term ‘*c*’ lacks a present referent, they might argue, it is not *now* permissible to existentially generalize on positions that this term occupies. I am not sure that this concern needs to be taken very seriously, but accepting it would in any case be tantamount to rejecting our quantified tense logic with untensed quantifiers, which does license such inferences. The net effect of restricting existential generalization to individual constants with presently existing referents is to turn tenseless quantifiers into tensed ones, and to reduce (P2) to the trivial thesis (P1).

Another way of trivializing (P2) is to adopt a tense analogue of Timothy Williamson’s (1998, 2002) account of quantified modal logic. Williamson accepts Bernard Linsky and Edward Zalta’s (1994) simplest quantified modal logic, on which quantifiers range over the objects in all possible worlds. But he *also* accepts the definition (E) of the existence predicate in terms of quantification and identity. Williamson concludes that every object exists in every possible world, but lacks spatial and temporal properties in some of them. Applied to our tense logic, this would mean claiming that every object exists at every time, but sometimes falls outside the extension of *all* the predicates that we earlier classified as “existence-entailing.” On this view, van Gogh still exists now; he just lacks mass, spatial location, and so on. Since premise 2 of our argument is false on such an account, we would no longer have a problem with (JC). But this benefit comes at the cost of trivializing (P2), which would turn out to be a theorem of our quantified tense logic. If everything always exists then there is nothing that exists at some time without being present.

This also points to an odd feature of all of our readings of (P2). Suppose it turned out—either by virtue of our quantified tense logic, or by pure chance—that all objects are sempiternal and thus exist at all times. Then (P2) would be true because all sempiternal objects exist now. But there would still be no significant *ontological* difference between the present and other times because exactly the same objects would exist at all times. So even if (P2) were true, it is not clear that presentism would be much better off as a consequence.

5 Tensed Quantifiers

In his response to the triviality objection, Thomas Crisp (2004) argues that the case against (P2) confuses a *de dicto* truth with a *de re* falsehood.⁵ He thinks that presentists should admit that Caesar crossed the Rubicon, PRc , and also that this entails that someone crossed the Rubicon, $P\exists xRx$. By doing so, they would accept a *de dicto* claim that predicates past truth of a *proposition*. But Crisp argues that this does not trivialize presentism because one can still reject the *de re* claim $\exists xPRx$, which states that the open sentence ‘ PRx ’ is satisfied by some *object*. However, if we adopt a quantified modal logic with untensed quantifiers then this is not a coherent position. According to the Tensed Barcan formulae (TBF), Crisp’s *de re* claim is logically equivalent to his *de dicto* claim, which means that one cannot accept one without the other.

At this point, presentists might be ready to explore the second approach to quantified modal logic. If we use tensed quantifiers then the *de dicto* claim $P\exists xRx$ does not entail the *de re* claim $\exists xPRx$. This might look promising, but there is nothing controversial about this. Unless we adopt the “Williamsonian” view that all objects are sempiternal, it does not follow from there having been R s that something exists *now* that *was* R . Nor does this help the presentist avoid the main dilemma. In terms of tensed quantifiers and identity, we could define an existence predicate via (E) and then offer $\neg\exists x\neg E!x$ as a formalization of (P1), which is again a theorem of our quantified tense logic and thus trivially true.

The regimentation of (P2) is a little bit trickier in this case, but that is largely due to the expressive limitations of quantified tense logics with tensed quantifiers. As mentioned earlier, such a logic would only provide a plausible framework for regimenting temporal discourse if it also contained Kamp’s “now” operator N in addition to P and F . In that case, we could formalize (P2) as:

$$\neg P\exists x(E!x \wedge N\neg E!x) \wedge \neg F\exists x(E!x \wedge N\neg E!x)$$

However, on any acceptable way of spelling out the details of such a tense logic, the first conjunct contradicts $P(E!c \wedge N\neg E!c)$, which follows from PRc and $\neg E!c$. So (P2) is still incompatible with (JC), and nothing has been gained. There might well be some systems with untensed quantifiers that do not permit any of these inferences, but presentism does not miraculously become a coherent thesis by adopting a background logic that is too weak to reveal its problems. If we put such impoverished systems of tense logic aside, then the dilemma for the presentist arises quite independently of whether we adopt tensed or tenseless quantifiers.

All the proposals considered so far attempt to resolve the difficulties with (JC) by modifying the quantificational part of our logic. In principle, one could also try

⁵See also Sider (2006: 78).

to change the underlying tense logic. For example, one could resist the inference from PRc to $PE!c$ by denying that tense operators are monotone (line 4). Then it would not follow from Caesar’s having crossed the Rubicon (line 1) that he did exist (line 5), even if we grant that R is existence-entailing (line 3). The set of sentences $\{PRc, \neg PE!c, H(Rc \rightarrow E!c)\}$ would turn out to be consistent, but such “logical perversions” would only be permitted within the scope of tense operators, and not when reasoning about the present moment. This defuses the problem with (JC) and also succeeds in making a principled distinction between the present and other times. Only truths about the present time would be closed under entailment. This is an intriguing position, but it is predicated on the assumption that tense operators are *not* monotone, and I do not see any reasons for accepting this. If Caesar crossed the Rubicon then it does follow that he did exist. As long as we can assume this much, (JC) is a counterexample to (P2).

6 Presentism and Actualism

Many philosophers—including some who reject presentism—worry that the triviality objection would prove too much. Since presentism is the temporal analogue of the modal thesis of *actualism*, they reason, accepting the triviality objection would force us to adopt a similarly dismissive view about actualism, and that cannot be right. Since actualism is widely accepted to be a non-trivial thesis, something must have gone wrong with our argument against presentism.⁶

My reply is that the mistake lies with the assumption that actualism has a temporal analogue, not with the triviality objection to presentism. To see where the two cases come apart, consider the modal counterpart of the presentist thesis (P):

(A) Nothing *exists* that is not actual.

This thesis is again ambiguous between two different readings of the ‘exists’ that occurs in it. If we interpret it as expressing actual existence (existence in the actual world) then we get a trivially true thesis:

(A1) Nothing *actually exists* that is not actual.

If we interpret the ‘exists’ as expressing possible existence (existence in some other possible world) then we get a non-trivial thesis that is obviously false:

(A2) Nothing *possibly exists* that is not actual.

This claim is incompatible with the truism that there could have been objects that do not actually exist. Hence (A) is either trivially true or obviously false. How do

⁶This argument is suggested by Sider (1999: sec. 1), Zimmerman (1998: 211), Hestevold and Carter (2002), and Crisp (2007).

actualists escape from this dilemma? The short answer is that they *don't*. The non-trivial thesis commonly called 'actualism' in the philosophical literature is neither (A) nor any other claim of quantified modal logic. Actualism is a version of the possible-worlds analysis of the modal operators, and thus a claim in the *meta*-theory of modal logic. It is a thesis about the modal operators, not about the scope of quantifiers.

Instead of taking it as a conceptually primitive, the possible-worlds analysis proposes to eliminate the possibility operator \diamond in favor of quantification over possible worlds, which are the different *ways the world might have been*:

$\diamond\varphi$ iff φ is true in some possible world.

What this proposal amounts to depends on our view about the nature of possible worlds. Modal realists like David Lewis argue that the actual world is a concrete object that consists of us and our surroundings. Other possible worlds are just like that; they are merely spatiotemporally disconnected from our world, like raisins in a pudding. Actualists (in the standard sense) claim that possible worlds are actually existing, abstract objects. Actualists disagree amongst themselves about which particular abstracta are to be identified with possible worlds, but all of them distinguish the *actual world*, which is an abstract object, from *actuality*, which is the mereological sum-total of all objects that actually exist. Apart from all concrete objects, actuality contains all abstract possible worlds. Which of these worlds is actual depends on which of them correctly describes the contingent features of actuality, including the arrangement and properties of the concrete objects.

Actualists and modal realists *agree* on the status of thesis (A). Both regard (A1) as trivially true and (A2) as obviously false, and they also agree that there is no intrinsic difference between the actual world and the merely possible ones. Modal realists think that other possible worlds are just like ours; they are aggregates of concrete objects. Similarly, all of the abstract possible worlds postulated by the actualist are metaphysically on a par. Which of them counts as actual depends on which of them happens to give the correct description of of the contingent parts of actuality. Being actual is an *extrinsic* feature of a possible world, but there is no principled intrinsic difference between the actual world and merely possible ones.

Nevertheless, there are substantial issues at stake in the choice between actualism and modal realism, and one might suggest that presentists adopt a similar strategy. The idea would be to abandon the trivial thesis (P) and instead try to formulate presentism as an account of the truth-conditions of past and future tense claims in terms of presently existing, abstract objects. But this strategy quickly runs into difficulties. Say that a *possible present* is an abstract *way the present might have been*, and consider a past tense claim of the form $P\varphi$. Then it is clearly incorrect to say, in analogy with the modal case, that $P\varphi$ is true just in case φ is

true according to some possible present. The reason is simple: the vast majority of possible presents never happen, and even those that do happen are not all past times. We could instead say that $P\varphi$ is true if and only if φ is true according to some possible present *that is also a past time*, but that just brings up the question of what makes it the case that a possible present *is* a past time. The obvious answer is that a possible present is a past time if and only if everything that is true according to this possible present *was* true, but this appeals to the very kind of past tense claim that we are trying to eliminate in favor of quantification over possible presents.

This points to a key difference between times and possible worlds that I explore in more detail in Meyer (2006). The possible-worlds analysis succeeds because there are no *contingent* facts about possibility. According to the standard modal system S5, any claim that is possible is necessarily possible, $\Diamond\varphi \rightarrow \Box\Diamond\varphi$, and any claim that is impossible is necessarily impossible, $\neg\Diamond\varphi \rightarrow \Box\neg\Diamond\varphi$. That is why it is *necessarily* true that $\Diamond\varphi$ holds just in case φ is true in some possible world. What possible worlds there are does not depend on what possible world is actual. By contrast, it *is* a contingent matter what was, is, and will be true. The same possible present can qualify as a time in one possible world and not in another. Which abstract possible presents are times depends on contingent facts about how things *were, are, or will be*. We cannot eliminate the tense operators P and F in favor of quantification over times because we need to appeal to claims involving these operators to specify which possible presents are times in the first place. Since there is no tense analogue of the possible-worlds analysis of the modal operators, there is also no temporal counterpart of the non-trivial modal thesis of actualism.

7 Reconstructive Presentism

A key ingredient of my case against (P2) is the assumption that (JC)—or some other claim like it—is in fact true. *Radical* presentism avoids this problem by rejecting all claims about past and future objects as either false or meaningless. This view succeeds in making a principled and non-trivial ontological distinction between the present and past and future times, but it is also clearly untenable. Nothing more needs to be said about it than to repeat that it does deny, on purely philosophical grounds, that Caesar crossed the Rubicon.

However, many presentists believe that they do not need to be quite *that* radical. Instead of rejecting past and future tense claims outright, they offer claims about presently existing objects as substitutes. Such a *reconstructive* presentism can take a number of different forms. For example, *trace presentism* offers descriptions of presently existing causal traces (memories, fossils, historical documents, etc.) as stand-ins for claims like (JC).⁷ Trace presentism has the odd consequence that past

⁷See, e.g., the paper by Brian Kierland in this volume.

tense claims that are true now cease to be true at a future time at which all relevant traces have disappeared. But some presentists are happy to accept this, and Jan Łukasiewicz (1970: 128) even thought that this would be a good thing:

There are hard moments of suffering and still harder ones of guilt in everyone's life. We should be glad to be able to erase them not only from our memory but also from existence. We may believe that when all the effects of those fateful moments are exhausted, even should that happen only *after* our death, then their causes too will be effaced from the world of actuality and pass into the realm of possibility. Time calms our cares and brings us forgiveness.

Another version of reconstructive presentism can be traced back to Lucretius (1947: bk. I, 459–80), who wants to trade ontological commitment to past objects for exotic properties of present objects. To assert (JC), he claims, is to say that the river Rubicon, which is a presently existing object, possesses the property of having-been-crossed-by-Caesar. John Bigelow (1996) defends a variant of this view, which attributes properties to the mereological sum-total of everything that presently exists. On Bigelow's view, (JC) asserts that this present aggregate of everything possesses the property of being-such-that-Caesar-crossed-the-Rubicon. The task of deciding which of these proposals to adopt is sometimes called the "truthmaker" or "grounding" problem for presentism. My own view is that *all* versions reconstructive presentism are untenable because they all run into the following problem.

If the proposed substitutes are meant as *paraphrases* of past tense sentences like (JC) then we are being offered little more than a range of implausible linguistic theses. That Caesar crossed the Rubicon and that there are presently such-and-such causal traces of the event are clearly two *different* claims. And when I say that Caesar crossed the Rubicon, I do not mean to attribute some weird property to the Rubicon, or to the sum-total of all presently existing objects. My claim is about *Caesar*. To determine what precisely is meant by (JC) might be a difficult task, but there is no need to settle this general question. As long as it is granted that (JC) entails that Caesar did exist—and it does—then (P2) is in trouble. The proposed substitutes for (JC) either have the same consequence, in which case nothing is gained, or they do not, in which case they are not synonymous with (JC) and do not qualify as paraphrases.

Perhaps this objection misreads the proposals, and the claims about presently existing objects are meant as genuine *substitutes* to be put in place of (JC), rather than as proposed paraphrases. But in that case we would still be asked to *reject* claims like (JC) for purely philosophical reasons, and reconstructive presentism would just collapse into radical presentism.

In this respect, presentists are in a similar position as mathematical nominalists, who deny the existence of mathematical objects such as numbers, functions, or sets. Just as presentists run into difficulties with (JC), mathematical nominalists have trouble accounting for simple arithmetical truths like “There are prime numbers between ten and twenty.” This claim are clearly true, but it entails the existence of the very objects that mathematical nominalists want to reject. Reconstructive nominalists try to get around this problem by offering claims about concrete objects as substitutes. For example, a classic paper by Nelson Goodman and W. V. Quine (1947) tries to construe arithmetic truths as claims about the spatial parts of material objects. As John P. Burgess (1983) argues, reconstructive nominalism runs into similar difficulties as reconstructive presentism. Reconstructive nominalism is either advancing an implausible linguistic thesis about mathematical claims, or else it rejects uncontroversial mathematical truths for purely philosophical reasons.

In both cases, the driving force is a philosophical “intuition” that there are no non-present objects, or no mathematical ones. I do not think either intuition needs to be taken very seriously, but in one respect the presentists are even worse off than the mathematical nominalists. Mathematical nominalists do at least have a genuine epistemological worry to motivate their view. If mathematics were indeed about a realm of causally inert mathematical objects then it would be unclear how beings like us, who acquire knowledge through our senses, could ever find out truths about them. No such worries arise for claims about past objects, which are epistemologically continuous with the rest of our empirical knowledge. We acquire knowledge of Caesar’s existence through exactly the same sort of causal mechanism by means of which we acquire knowledge of presently existing ones.

8 Conclusion

In sum, I think that the triviality objection to presentism can stand as it is. There is no reading of the presentist thesis on which it makes a non-trivial claim that is not also obviously false. To arrive at this conclusion required a mix of logical analysis and empirical investigation. But all we needed by way of the latter was reassurance there there once were (or will be) objects that do not presently exist. There is no need to engage in a sophisticated investigation of the theory of relativity. Even if Einstein had been wrong and Newton right about the laws of mechanics, presentism would still have been either trivially true (P1) or obviously false (P2).

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