

“The method of ‘postulating’ what we want has many advantages; they are the same as the advantages of theft over honest toil. Let us leave them to others and proceed with our honest toil.” Russell (1919, p. 71)

1. Introduction

Presentism is the metaphysical view that only present things exist.¹ Our most inclusive domain of quantification, on this view, contains only present things. Natural language expressions that use quantifier phrases such as ‘there are,’ ‘there exists,’ ‘for all,’ ‘for any,’ unrestrictedly quantify over present things only, because present things are the only things in the domain. The present is ontologically distinct from the past and the future precisely because the present exhausts what there is.

Eternalism is the view that past, present and future things equally exist. On this view, there is no objective present or ‘Now.’ For the eternalist, ‘now’ operates like ‘here:’ it refers to whatever the time or place of the speaker’s utterance is, whether in Shakespeare’s England, or Obama’s America. Our most inclusive domain of quantification includes all the things that did, do, and will exist. Tenses restrict this domain to sub-domains, such as past or future times.² The present time (and the objects located there) are ontologically on a par with past and future times (and the objects located at those times). Such a view usually requires that we think of reality as consisting of a “four-dimensional spatiotemporal manifold of events and objects, the so-called ‘block universe’”

¹ To be more technical we can define Presentism as such: “Necessarily, it is always true that only present objects exist” (Markosian 2004 p. 47). An exact definition will not matter for the purposes of this paper. However, I do take it for granted that the thesis is non-trivial. For a debate on the definition of presentism see the correspondence between Crisp and Ludlow in Zimmerman 2004.

² The eternalist does not need tenses to express the truth-conditions of tensed statements.

(Sider 11).³ The difference between these two theories can be seen in the truth-conditions that they assign to past- and future-tensed propositions.

The eternalist can give statements of truth-conditions for past- and future-tensed statements by quantifying over non-present things. For example,

(P1) ‘Socrates was a philosopher’ is true in 2013 iff $\exists t \exists x [(t \text{ is a time} \ \& \ x = \text{Socrates} \ \& \ x \text{ is a philosopher at } t) \ \& \ t \text{ is earlier than } 2013]$.

(P2) ‘Socrates’ death was prior to Jesus’ death’ is true iff $\exists t \exists x [(t \text{ is a time} \ \& \ x = \text{Socrates} \ \& \ x \text{ dies at } t) \ \& \ \exists t_2 \exists y (t_2 \text{ is a time} \ \& \ y = \text{Jesus} \ \& \ \text{Jesus dies at } t_2) \ \& \ t \text{ is earlier than } t_2]$.

Here, the eternalist has access to times over which he may quantify. This makes giving truth-conditions for past-tensed propositions and propositions involving cross-temporal relations simple: we can refer to the time and quantify over the objects that exist at that time. The presentist, however, cannot quantify over non-present things or non-present times. How can the presentist interpret these propositions without reference to times? Most presentists follow Arthur Prior and adopt the resources of tense logic⁴ in order to give the truth-conditions of past- and future-tensed statements. Prior took tenses as a species of modality and developed a formal logic with the presentential tense operators ‘P’ (‘It was the case that’), ‘N’ (‘It is now the case that’), and ‘F’ (‘it will be the case that’). According to this approach, we get truth-conditions such as these:

(P3) ‘Socrates was a philosopher’ is true iff $NP \exists x (x = \text{Socrates} \ \& \ x \text{ is a philosopher})$.

³ While some eternalists hold this thesis about temporal parts, known as perdurantism, accepting eternalism does not entail accepting perdurantism.

⁴ For a historical account of Prior’s development of tense logic see Øhrstrøm, P. and Hasle, P., 1995. For a recent account of tense logic within the broader context of non-classical logics, see John P. Burgess 2009.

With Prior's extended metrical tense logic we can modify the temporal operators. 'Pnp' means 'It was the case the interval n ago that p.' Now we can give the following truth-conditions for 'Socrates died 2412 years ago':

(P4) 'Socrates died 2412 years ago' is true iff $P(2412 \text{ years})\exists x (x = \text{Socrates and } x \text{ dies})$.

The major benefit of this approach for the presentist is that all past- and future-tensed propositions can be reduced to present tensed propositions within the scope of temporal operators. Also, notice that because the temporal operators have wide scope, we do not explicitly quantify or refer to past or future times. Prior argues that statements like 'x is Socrates and x is a philosopher' express only general facts⁵ that are only loosely 'about' Socrates the individual. 'It was the case that' and 'It will be the case that' function similarly to 'It is said that' and 'It is thought that.'

For Prior, the fact that statements like, 'I think that (for some specific x (x stole my iPhone))' do not entail statements such as 'for some specific x (I think that (x stole my iPhone)),' also holds for statements within the scope of P or F. Namely, 'It was the case that (for some specific x (x is called 'Socrates' and x is a philosopher))' does not entail the statement 'For some specific x (It was the case that (x is called 'Socrates' and x is a philosopher)).'⁶ This allows Prior's approach to generate the right truth-conditions, but without making the ontological commitment to past or future times.⁷

2. A Problem for Presentism

⁵ It is a general fact that somebody stole my iPhone, but it is an individual fact that Ralph Robertson stole my iPhone.

⁶ This analysis is provided in 'Changes in Events and Changes in Things' in Prior 1968.

⁷ I take it for granted that Prior's account of natural language tenses in terms of sentential temporal operators is coherent and consistent. While the quantification theory of tenses has become prevalent, see Brogaard 2012 for a recent defense of the Priorian view.

A major objection to presentism is that it does not have the resources to ground the truth of past- and future- tensed sentences. The intuition behind this objection is that true propositions are in some sense made true by what is the case, i.e. what exists. True propositions do not float free of the world.

(TMP) The Truth-maker principle: for every truth, T, there exists an entity--a 'truth-maker'--whose existence suffices for the truth of T. (Sider 2001 p. 36).⁸

If one accepts presentism, how does she account for the truth of propositions such as Socrates was a philosopher? Surely, for a presentist Socrates himself is not a constituent of the ground; he doesn't exist. The grounding objection to presentism is simply this: the presentist's ontology cannot ground past- and future-tensed truths; so it is not true that Socrates was a philosopher. Such past- and future-tensed truths will either be false, or truth-valueless. However, this is unacceptable according to the truth-maker principle.

3. Criteria for a Theory of Presentism

Given TMP in conjunction with the motivations behind presentism, we can define criteria that any adequate theory of presentism should meet. Firstly, a presentist theory should not invoke non-present objects or times. Our domain of quantification cannot contain these entities and we should be able to make true affirmations in our theory without reference to such objects. Secondly, a presentist theory should preserve our intuitions about what was the case. Our theory should avoid the incredulous stare which follows from denying that there are no truths about the past, or denying

⁸ This principle may in fact be too strong. Crisp (2007 p. 239) advocates a weaker principle: "(SP) Supervenience =_{def} For any proposition p and worlds w and w*, if p is true in w and not in w*, then (a) according to w, something exists in it but not in w* (or vice versa), or (b) according to w, some objects instantiate a property or relation in it but not in w* (or vice versa)." However, in this paper I will use TMP as the formulation of the truthmaker intuition.

that a large subset of (commonly believed) past truths are not truth-evaluable. Thirdly, a theory of presentism should not leave us with an obscure ontology by positing abstract entities without justification. We should avoid positing obscure entities to do theoretical work, as this makes presentism unappealing and makes the case against eternalism much harder to make. This is especially evident with the truthmaker objection, since the eternalist does not need to posit obscure entities to satisfy TMP. For example, a presentist could posit abstract entities that simply encode all the facts that make true propositions about the past. However, if these abstract objects are completely *sui generis* and the presentist cannot tell us more about them other than the fact that they encode the facts needed to satisfy TMP, then this would not be a good theoretical position. This is because even the presentism would agree that the eternalist's past and future times are not obscure, because the presentist uses the same type of entity to ground truths in the present. To summarize, the criteria for an adequate theory of presentism are as follows:

- (i) There can be no quantification over non-present times or non-present things,
- (ii) We must preserve our intuitions about what was the case,⁹ We should not make propositions that are commonly held to be true false, i.e. we should not make propositions about the past and future nonsensical or impossible to evaluate for truth or falsity,
- (iii) We cannot posit obscure entities whose structure we cannot speak of.

4. Presentist Responses to the Truthmaker Objection

4.1

⁹ Later it will be argued that our intuition about what was the case also includes intuitions of the following sort: some certain objects preceded other certain objects, Socrates was born before Plato, etc.

One solution to the truthmaker objection is to accept that some of the problematic tensed statements are neither true nor false, and therefore they have no need to satisfy TMP. This approach is taken, with respect to the future, by C.D. Broad who argued that future contingents lack truth-values and thus do not conform to the principle of bivalence; namely, that every proposition is either true or false. We can simply bite the bullet and say that statements about the future are neither true nor false.

An obvious problem for this approach is that for the presentist, Broad's anti-realism toward the future must also hold for the past.¹⁰ Broad has past times to ground past truths, but the presentist cannot rely on these. It would then follow that the presentist must hold that both past- and future- tensed propositions lack truth-values, or at least some very large subset (e.g. statements involving contingents) lack truth-values. This clearly violates the criterion that our presentist theory should not violate our commonly held views about what was the case. In other words, such a view invalidates many coherent beliefs about the past and future and makes them non-evaluable or nonsense. If presentism requires that we concede that past- and future-tensed propositions are neither true nor false, we have overriding reasons to reject it.

4.2

One presentist solution to preserve the truth of past-tensed statements is given by Brian Kierland and Bradley Monton. They argue that past-tensed statements are made true by the past, understood as a brute aspect of reality irreducible to present things or the properties that they presently possess (Kierland and Monton pp. 491). This postulation of a brute past satisfies criterion one of a satisfactory presentist theory since for them, "the way things are is the way things

¹⁰ "And it seems to me that any adequate Presentist solution to the problem should treat the past and the future as perfectly analogous" (Markosian 2004 pp. 55).

presently are” (Kierland and Monton pp. 485). In other words, ‘the way things are’ has nothing to do with non-present things or the properties they do not presently possess.

This account also satisfies criterion two of a satisfactory presentist theory because it preserves our intuitions about what was the case. The statement ‘Socrates taught Plato’ is true because that is the way things were; i.e. the statement is made true by the brute past. According to Kierland and Monton, the past “is what has happened: what things existed and how they were. But what is that? To ask that question is to presuppose that the past must be explainable in other terms. And this presupposition may simply be false” (pp. 491). Understood in such a way, this theory does not make any true past-tensed statements false and does not leave them truth-valueless; what is true about the past is made true by the way things were and the way things were is an irreducible unexplainable part of reality.

Can this theory satisfy criterion three of what a presentist theory should accomplish? This is how Kierland and Monton explain the brute past with respect to its metaphysical status:

“The past is an aspect of reality, even though no past things are. How can this be? There is no reductive explanatory answer to this question. The crucial feature of brute past presentism is that it postulates a sui generis metaphysical category, one independent of things and how they are” (pp. 491).

This theory does not postulate any obscure entities, but rather an entirely new metaphysical category. Regardless of whether the theory is coherent and consistent, it is obvious that the positing of such a brute past will not be a satisfactory response to eternalists.

The major objection to this approach is simply that it costs too much ontologically. For example, why should we accept a sui generis ontological category over, say, primitive facts or

states of affairs¹¹ about the past that make true past-tensed statements? At least in the latter case we know what facts and states of affairs are, although we may be left in the dark about how exactly they are primitive. In the case of brute past presentism, we have no idea what the *sui generis* past is, although we may know things about it.¹² The asymmetry with regards to what we know facts and states of affairs to be compared to what we know the brute past to be is evidence that this solution does not satisfy criterion three of what a defensible presentist theory should accomplish.

4.3

Another solution to the truth maker objection is to rely on haecceities, i.e. properties such as being identical to Plato or being identical to Thales (See Markosian 2004; Keller 2004). A statement like ‘Socrates was a philosopher’ expresses the proposition that there was a unique *x* and *x* was a philosopher, which is made true by the haecceity of Socrates. Although acceptance of haecceities is controversial, it would seem that allowing them will satisfy criterion one in much the same way as brute fact presentism: by shifting the burden of truthmaking onto entities (or an aspect of reality) that are not in the strict sense included in the things that presently are, and the properties that things presently possess. For example, by quantifying over haecceities we are not strictly quantifying over non-present individuals; the property of being identical to Socrates is distinct from Socrates the individual.

¹¹ It seems that Prior’s ideas about propositions would lead him to endorse brute facts: “For, given his doctrine that propositions are themselves ‘logical constructions’ out of the objects they are about, how is it possible for the proposition that Socrates taught Plato to be true? Which particulars can be invoked as the constituents of such a fact? Not Socrates or Plato--they don’t exist. ... The alternative is to invoke the primitive present fact that Socrates taught Plato. But without being able to say how this fact is structured (for its constituents are certainly not Socrates or Plato), this move is far from satisfactory. Thus either option leaves us with an obscure ontology.” (Bourne 2006 p. 44)

¹² We can say things about the past because according to the theory the brute past has a ‘shape’ irreducible to things or properties: “The brute past has an intrinsic nature. Given what we say next, we like to think of this intrinsic nature in terms of the past having a certain ‘shape’. This shape does not consist in a structure of things having properties and standing in relations to one another” (Kierland and Monton pp.491).

With the addition of the thesis that haecceities exist even when the individuals that they are about no longer exist (thus, there are a great number of uninstantiated properties), this solution also satisfies criterion two because every past (singular) true proposition will have as a ground the haecceity of an individual that did exist and this property will itself instantiate the relevant properties. However, although we do seemingly preserve the truth of past-tensed statements, it is not at all clear that we preserve our intuition concerning what was the case. In fact, it seems that brute past presentism has an advantage in this regard.

Consider the true past-tensed statement, ‘Nietzsche chatted with Wagner.’ The presentist endorsing haecceities would say that this is true because the haecceity of Nietzsche bears the relevant relation to the haecceity of Wagner. However, it is not clear that someone uttering such a sentence would take herself to be speaking about a relation holding between properties, as opposed to individuals. It would seem that such a theory would have to posit two different kinds of explanations for truthmaking; one involving present individuals, and the other involving non-present haecceities. This is not the case with brute past presentism, since it does not pretend to offer a reductive analysis of how past-tensed truths are made true. Brute past presentism only has one kind of explanatory truthmaking that is restricted to present things and the way they are. If our choice of answers to the question ‘What makes it true that ‘The Athenian fleet was destroyed at Aegospotami in 405 BCE’? are (a) ‘The relation of being destroyed holds between the property of being identical to the Athenian fleet, the property of being identical to Aegospotami and the property of being identical to 405 BCE’¹³ or (b) ‘It just happens to be the case that the Athenian

¹³ Keller argues that this sort of explanation is needed by the haecceity presentist in order to preserve the intuition that propositions are made true at a certain time (Keller 2004 pp. 97).

fleet was destroyed at Aegospotami, and there is nothing more to it,' it seems clear that brute past presentism offers a solution that satisfies criterion two much less problematically.

It is also unclear that this approach satisfies criterion three, since acceptance of haecceities is not uncontroversial, and it is also much more problematic that such haecceities can exist uninstantiated. It seems obscure that there is a property being identical to Augustus Caesar that does not directly involve the individual Augustus Caesar and can exist while Augustus Caesar himself does not. Also, as with brute past presentism, it seems less controversial to accept brute facts or states of affairs than haecceities. Therefore, we have overriding reasons to reject haecceity presentism.¹⁴

4.4

Another solution to the grounding objection is to ground the truth of past-tensed statements on certain properties that the world presently possesses (Bigelow 1996). Bigelow offers the following solution to the truthmaker objection:

One of the things that exists is the whole world, the totality of things that exist. The world can have properties and accidents, just as its parts may have. It is a present property of the world, that it is a world in which Helen was abducted and the Trojans were conquered. (pp. 46)

¹⁴ For analogous reasons, we should reject a Meinongian presentist solution to the truthmaker objection (See Hinchliff 1988). By positing past non-existent entities we are not meeting our intuitions about what was the case (since non-existent objects seem as obscure as uninstantiated haecceities), and such a position also costs too much ontologically (especially in comparison to brute facts or states affairs).

For every true past-tensed statement there is a property presently possessed by the world that makes it true. The world currently possesses properties such as being such that dinosaurs existed, being such that Arthur Prior lived, being such that the Civil War occurred, and so on.

One advantage of this approach is that these world properties are less obscure, although more lavish, than haecceities and the brute past. Nobody will deny the present existence of the world, or the fact that it has properties.¹⁵ This approach also is more ontologically acceptable than brute past presentism, since we only have to explain past truth in terms of properties, and not a sui generis metaphysical category. For these reasons, Bigelow's version of presentism seems to be less ontologically obscure and more satisfactory of criterion three than the other theories surveyed.

It also seems clear that this version of presentism will be able to satisfy criterion one. Since we are only required to quantify over the world, and the world presently exists uncontroversially, there is no need to have past individuals and their properties in our domain. This allows us to make sense of the truth of the statement Socrates was a philosopher without invoking Socrates, or the property of being identical to Socrates.

Does this theory satisfy criterion two of a favorable presentist theory? An argument found in Keller (Keller 2004) makes it doubtful that world properties are fine-grained enough to account for all the past-truths that we need. Keller argues that this approach falters because "the presentist must take care of the fact that non-present instantiations of properties are not just in the past or future, but are at particular moments in the past or future" (Keller 2004, pp. 95). It seems that the defender of this version of presentism must posit certain properties that encode facts about when events occurred. For example, you would need a property that encodes the fact that the events that occurred in the year 1945 preceded the events that occurred in the year 1946, or that the Twin

¹⁵ For Bigelow, world properties are identical to propositions, and propositions are hard to deny.

Towers fell on September 11, 2001 and not on September 12, 2001. It seems that like haecceity presentism, world property presentism also fails to satisfy criterion two unproblematically. Once again, it appears that brute past presentism holds an advantage. The brute past presentist does not pretend to offer an explanation concerning the temporal ordering of times, or the fact that a certain event occurred at that certain time: it simply is the case that the past was such that the Twin Towers fell on September 11, 2001 and that the events of 1945 precedes the events of 1946.

World property presentism does not satisfy our intuitions about what was the case because our intuitions about what was the case surely includes the sense that certain events preceded certain other events. Consider the following example: At t_1 'Socrates is hairy' is true, at t_2 'Socrates is bald' is true, and at t_3 'Socrates was hairy and then the next moment he was bald' is true. It seems odd that at t_1 and t_2 both the corresponding statements are made true by the then-presently existing objects and the properties they possess, but the next moment the present-tense truthmaking that had occurred simply gets subsumed under a world property. In other words, world property presentism does not have the resources needed to explain that one set of propositions corresponding to a world (totality of things) is made true at a moment, and the next moment a different set, and the next moment another.¹⁶

Even if the world property presentist posits properties that encode information about the ordering of times and facts concerning the events that occurred at certain times, it seems superfluous to require world properties to do the job. For example, we could simply drop the pretense to world properties, thereby avoiding the 'fine-grained' objection, and rely on other

¹⁶ Other forms of presentism have ways of defusing this worry. For example, haecceity presentists can at least say that 'Socrates was hairy and then the next moment he was bald' really does express a relation between two different moments of time, because we have the haecceity of t_1 and the haecceity of t_2 , and the brute fact that $t_1 < t_2$. At least the haecceity version of presentism preserves the sense that cross-temporal relational propositions express a relation among propositions that were made true at two distinct times. This is also not a problem with brute past presentism, since it simply was the case that the times are distinct.

resources to provide the needed information. The following version of presentism offers a solution that abandons world properties, preserves the intuition that the world makes things true at distinct times, and does not rely on any of the above resources.

5. Ersatzer Presentism

Ersatzer presentism is a theory that is purported to meet all the criteria for a favorable presentist theory, while avoiding the pitfalls of the other approaches. According to Bourne (2006, p.68), most presentist responses to the grounding objection fail because those theories rest solely on concretely realized present facts. Bourne proposes to use abstract objects (propositions, numbers, and sets) in order to meet the grounding objection. He states his program as follows:

All of us should agree that Socrates taught Plato, i.e., that the proposition that Socrates is teaching Plato was, at some time, true...I say we should take the 'i.e.' seriously; that is, that what makes it true that Socrates taught Plato is the existence of a proposition that states this is the case for some time in the past, where a time is a set of propositions that states the other truths about what happens at that time. (Bourne 52)

If this program is successful, then Bourne will have satisfied the truthmaker principle by an appeal to propositions (sets, and numbers), which are (timeless) abstract objects and therefore presently exist.¹⁷

¹⁷ A similar approach is taken in Crisp 2003 and Crisp 2007. Crisp's ersatzer presentism builds upon the ontological commitments of possible world realists (i.e. people "who take possible worlds talk literally in that they believe reality to be populated by possible worlds" (240) and he argues that taking times as abstract objects requires little to no additional ontological cost. In formulating his ersatzer presentism, Thomas Crisp follows Prior, Chisholm and Zalta in taking moments of time as abstract objects: "Times, on this view, are, like possible worlds, abstract representations: intuitively, they are abstract representations of an instantaneous state of the world" (240). Just as we can talk about a binary logical accessibility relation defined on the set of possible worlds, we can talk about a temporal accessibility relation defined on the set of times. With respect to the temporal accessibility relation, we can define past times as times which are earlier than the unique present time and future times as times which are later

5.1 Bourne's Theory

In his theory of ersatzer presentism, Bourne proposes constructing times out of sets of maximally consistent sets of unembedded propositions (u-propositions). Embedded propositions (e-propositions) contain one or more occurrences of 'P' or 'F' (e.g. Npp, NFp). Unembedded propositions contain no occurrences of 'P' or 'F' (e.g. Np, N(p&q)). Which sets of unembedded propositions are we to use to construct ersatz times? Bourne proposes that we "construct times using maximally consistent sets of u-propositions, which intuitively we can see as those u-propositions that are true at that time" (54).

Since there is only one time that exists, Bourne cannot rely on quantification over all times to generate his sets.¹⁸ He can only generate one maximally consistent set, which are those propositions made true now. Bourne's use of the plural 'sets' reveals that in this explanation, there must be some appeal to non-present times. Since there can only be one set of maximally consistent propositions true now; the plural 'sets' implies that there are other times.¹⁹

However, there is only one set and one set won't be satisfactory. Bourne needs one set per real time. The reason is that there were dinosaurs is true now, for Bourne, because, roughly, there are dinosaurs is a member of a maximally consistent set of u-propositions that were true at a past time (although he will try to construct ersatz times to do the job--details below). Bourne cannot be assuming that for every time t, there exists a set of propositions true at that time because this

than it. We can then define non-present truths by quantifying over abstract times, e.g. "for any proposition p, necessarily, it was the case that p iff, according to a past (i.e. earlier) time, p" (Crisp 2007 p. 241).

¹⁸To do so would be to assume $\forall t (t \text{ is a time} \rightarrow \exists x \forall p (p \in x \leftrightarrow p \text{ is a u-proposition true at } t))$.

¹⁹This would not be the case with 'propositions that were true at a time, are true at a time, and will be true at a time.'

requires that we quantify over non-present times. This would violate criterion one of an adequate theory.

5.2 Bourne's Options

How then can Bourne's theory generate the results he needs? Let us consider the set-theoretic resources available to him that do not quantify over non-present times. Which maximally consistent sets of u-propositions can Bourne use? The answer is simply all the maximally consistent sets of u-propositions. Call that set M .²⁰

This leads to trouble when we try to define T , the set of ersatz times. For let R (the set of real numbers) be the set of 'dates.' Then the cartesian product of M and R will pair every ersatz time with a 'date.'²¹ However, since every maximally consistent set is involved it is difficult to see how we can get the pairing right, i.e. it is hard to see how we can order the sets. Things work very well for the present concrete time (i.e. now), for we may say that there is a concretely realized ersatz time such that the ersatz present time contains a set μ_p which has as its members all of those u-propositions which are true now. But what about the other times?

Perhaps we can generate the other ersatz times by relying on the resources of the dating system. Let us assume that R , the dating system that involves abstract linguistic objects, is the dating system we customarily use (BCE/CE or BC/AD). Bourne certainly can get the date, d , for the maximally consistent set of u-propositions true now; because one u-proposition true now will say that it is now d . He would like that

²⁰ $M = \{x: x \text{ is a maximally consistent set of u-propositions}\}$

²¹ $M \times R = \{\langle \mu, r \rangle: \mu \in M \text{ and } r \in R\}$

(B) Beethoven is performing his 3rd symphony for the first time now on April 7 1805

is a member of a maximally consistent set of u-propositions that is paired with the date April 7 1805. The question is whether he can get this. It might be possible for Bourne to extract the date from (B), so that any maximally consistent set that has (B) as a member will have the date April 7 1805. Even if this solved the problem of correlating the sets that have (B) as a member with the correct date,²² it cannot solve the problem of an untold number of other maximally consistent sets that contain propositions featuring the date April 7 1805. This is a problem because many maximally consistent sets contain false propositions.

Perhaps Bourne's more systematic account of how he intends to construct E-related ersatz times will get him what he wants:

[...] we can introduce the ordered triple $\langle T, E, t \rangle$, where T is a set, E is a relation on T , and $t \in T$. Intuitively, T is the set of [ersatz] times, E is the 'earlier than' relation, and t is a particular time. (Bourne 2006, p. 54)

This is not a satisfactory explanation. T is the set of ersatz times; these times defined as "more than sets of present-tensed propositions: first, they consist of sets of u-propositions; second, they also contain a 'date.'" (ibid.) However, for every date there will be an innumerable number of these sets of u-propositions. We will end up with ersatz times such as $\langle \mu_1, d \rangle$, $\langle \mu_2, d \rangle$, $\langle \mu_3, d \rangle$, and so on.²³ How can we ensure that the E-relation is relating the correct ersatz times, i.e. how can we make sure that $\langle T, E, t_1 \rangle$ is actually E-related to $\langle T, E, t_2 \rangle$ which is E-related to $\langle T, E, t_3 \rangle$,

²² It does not, since there are maximally consistent sets of which B is a member that contain lots of false propositions, such as Wagner married Cosima on January 1 2007.

²³ The possibility of ordering makes for an enormous epistemic hurdle insofar as how we can sort through them – but maybe this is a complicated empirical process that we perform very quickly. The details have yet to be provided, at least.

and that t_1 , t_2 , and t_3 (which we can represent as $\langle \mu_1, d_1 \rangle \langle \mu_2, d_2 \rangle \langle \mu_3, d_3 \rangle$) contain sets which represent all that was true at their respective dates? In other words, how can we make sure that all our ordered triples are actually E-related such that they are “structurally similar to a real time series, so it can be taken to be a sufficient substitute” (Bourne 2006, p. 54)?

Bourne has an answer for this objection, but it is far from satisfactory. It is worth quoting extensively, since in this section Bourne makes explicit his ontological commitments:

First, whether a given proposition appears in a time is simply a brute fact. [...] This is no objection since it is no more mysterious than concrete facts being realized at the times they are according to tenseless theorists. The real bite of the question may be thought to come from explaining why the various times are E-related. But on reflection it is more of a toothless suck than a vicious bite. For, according to ersatzer presentism, what makes ‘it was the case that p’ true is an actually E-related ordered triple, whereas according to the tenseless theory, what makes it true is an actually earlier than-related concrete fact. Now to ask why these ordered triples are actually E-related is about as fair as asking why the concrete facts are earlier than-related in the tenseless theory, i.e., not at all--they just are.²⁴

In this sense, then, all theories take it as a brute fact that it was the case that p; the advantage

²⁴ A similar view is expressed in Crisp (2007 p. 104): “Why do the concrete times come temporally ordered in the way they do? [...] (For eternalists) its a brute, contingent fact, on this view, that concrete times come temporally ordered as they do. Likewise for the presentist...it’s a brute contingent fact that the abstract times come temporally ordered as they do. Explanation has to come to an end somewhere, and it’s not unreasonable to suppose that it bottoms out in the contingent fact that certain times are earlier than certain other times.” Although Crisp defines ‘times’ and the ‘earlier than’ relation on the set of ‘times’ differently than Bourne, the defense is essentially the same: the ordering of abstract/ersatz times is a brute contingent fact no more mysterious than the brute contingent fact that concrete times come ordered the way that they do. It is enough to say that this defense is inadequate because it is not obvious that it is a brute contingent facts that concrete times come ordered the way that they do, nor is it obvious that it even makes sense to talk about ‘concrete times’ being temporally ordered at all. Bourne himself says that the four-dimensionalist Earlier than relation relates spatio-temporal objects (Bourne 2006 p.54) and therefore, on further analysis, ‘concrete times’ can be seen as logical constructions that can be reduced to relations between spatio-temporal objects. Therefore, there is no strict analogy between abstract and concrete times, because concrete times are reducible to objects and relations.

over Priorian presentism is that these other theories have an account of what this fact looks like, be it an E-related abstract structure or an earlier than-related concrete one. (Bourne 65).

Note that there are three apparently distinct things that he is claiming are brute facts:

(I) Whether a given proposition appears in an [ersatz] time is simply a brute fact.

(II) Ordered triples are brutally E-related.

(III) It is a brute fact that it was the case that p.

With respect to (I), we have already seen that Bourne cannot assume this without cutting the cartesian product of the set of all maximally consistent u-propositions and the dating system down to the ersatz times. However, he cannot do this without quantifying over real times. It is also unclear if the claim that ‘the brute fact that a given proposition appears in a time is no more mysterious than concrete facts being realized at the times they are according to tenseless theorists’ is true. There is a disanalogy here because Bourne assumes ersatz times are ordered pairs that contain dates. However, the analogy does not hold since we cannot pair the right date to the right set of u-propositions without taking for granted the ordering of ersatz times, which seems to assume non-present concrete times. That a proposition appears in an *actual* time is not a brute fact; this distinction seems to follow only by assuming all times.

Another objection to Bourne’s theory is that it leads to a view too similar to four-dimensionalism and which has unfavorable ontological consequences. Recall, for eternalism it is a brute fact that concrete facts are realized at a time. This entails that it is a brute fact that The date is January 26, 1990 is realized on January 26, 1990. Now consider the u-proposition It is now

January 26, 1990. According to Bourne, it simply is a brute fact that this proposition appears at the ersatz time it does. However, if it is a brute fact that the proposition *It is now* January 26, 1990 is a member of the set paired to the date January 26, 1990, then for every date it will be a brute fact that there is date-containing proposition paired to that date. Again, it does not seem clear how assuming that for every date, there is a brute fact containing a proposition about that date is any different than assuming all times.

Even if this is not quantifying over times per se, it does seem that Bourne's solution entails brute facts that properly encode date-information. However, concrete times also have brute facts that encode date-information. If this is the case, then it is hard to see the difference between ersatz presentism and four-dimensionalism. Both assume brute facts that encode date-information and both assume brute facts concerning the linear ordering of times (ersatz or concrete). It would seem that the only difference between the positions is that ersatz presentism has only one concrete time, while eternalism has all concrete times. If these are our choices, there is no reason to accept presentism over eternalism, since the former will require us to accept that what is now non-concrete will become concrete, and what is now concrete will become non-concrete.

Considering (II), we have already argued that Bourne cannot ensure that all the ordered triples are actually E-related without some other assumptions. Bourne has not explained how these brutally E-related ordered triples will be "structurally similar to a real time series, so it can be taken to be a sufficient substitute" (Bourne 2006, p. 54). Bourne's presently existing abstract objects (propositions, sets, numbers) do not seem to be able to generate the proper set-theoretic substitute to the four-dimensional manifold.

Lastly, let us consider (III). Here Bourne claims that his theory satisfies TMP without assuming more than any other theory (presentist or eternalist). However, is it true that all theories take it was the case that p as a brute fact? Firstly, it is not at all clear how it was the case that p can be a brute fact to an eternalist. The eternalist could not make sense of the brutality of this fact because it is tensed. The fact that $t < t_1$ & $t_1 < t_2$ and so on are brute facts, but there being a brutal aspect of a past truth (for example, it being a brute fact that the world is composed the way it is in 1933) does not imply that it was the case that p is a brute fact now. The four-dimensionalist does not assume (III). Also, brute past presentism explicitly rejects (III) because the brute past is a sui generis metaphysical category and does not depend on facts.

None of Bourne's explanations seem sufficient to meet the above objection concerning his inability to generate the right ordered triples which are actually E-related. His use of brute facts to defend his claims is unsuccessful. His claims commit him to positing a brute fact for every date, and leads to a view too similar to four-dimensionalism. Moreover, it appears that his theory does commit to more than all rivals theories, as claimed by (III).

9. Concluding Remarks

It is doubtful that ersatzer presentism is an adequate theory. It technically does not quantify over past times, but it does entail that for every past abstract time we have a date-encoding brute fact that ensures that we can mirror all concrete times. Committing oneself to such brute facts seems counter to our presentist intuitions. The present time is the only one that is actual or real, however it is hard to see how this intuition can be maintained if we allow for non-concrete times, i.e., for metaphysical *ad hoc* posits that serve as truth-makers for non-present tensed propositions.

Out of all the views surveyed, which satisfies TMP and the three criteria for an adequate presentism? Ersatz presentism does not satisfy criterion one, as argued above. Haecceity presentism does not satisfy criterion three, and it seems to violate criterion two because it does not have the resources to make true propositions that are too fine-grained without postulating haecceities for all non-present times.

We are now left with brute fact presentism, which satisfies both criterion one and criterion two, but which may fail to satisfy criterion three because it posits a sui generis metaphysical category. However, it should be clear that satisfaction of the first two criteria should override the problematic satisfaction of the third one, i.e. an obscure ontology should not prevent us from accepting a version of presentism that does not quantify over non-present things or times, and which preserves our intuitions about what was the case. None of the other theories surveyed can satisfy both the first criterion, so it appears that a presentist is better off endorsing the brute past approach.

Accepting an entirely new metaphysical category should not come lightly, and a sui generis brute past seems a hard pill to swallow. However, there is a less costly version of presentism: brute fact presentism. As argued above, accepting brute facts or states of affairs such as *It was the case that Socrates taught Plato* is more acceptable ontologically than accepting brute past entities, since we at least have a theory about facts or states of affairs. Bourne's major objection to this strategy, what he calls Priorian presentism, is that it does not offer an account of what these facts look like. According to Bourne, Prior's view of propositions forces him to "invoke the primitive present fact that Socrates taught Plato. But without being able to say how this fact is structured (for its constituents are certainly not Socrates or Plato), this move is far from satisfactory. Thus either option leaves us with an obscure ontology." (Bourne 2006 p. 44) If the only argument against

this view is that it does not satisfy criterion three, it still seems a better option than endorsing a view that cannot satisfy the first two criteria. If providing an account of the structure of past facts leads us to quantify over non-present time, or to invalidate our intuitions about the way things were, then we should either reject presentism or we should reject any pretense to offer an account of the structure of past facts.

In conclusion, hecceity presentism, world property presentism, and ersatzer presentism all fail to satisfy both criterion one and two of an adequate presentist theory, and should therefore be rejected. Both brute past and brute fact presentism are better alternatives, but the prior ontologically commits us to a sui generis metaphysical category, and the latter leaves us in the dark concerning the structure of present brute facts about the past. However, if preserving the intuitions which motivate both presentism and TMP is our major concern, then perhaps we must accept this ontological obscurity or else reject presentism.

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