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Is, Was, Will, Might

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Is, Was, Will, Might

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Is, Was, Will, Might

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My guiding question is this: how does what **is** metaphysically differ from what **was**, **will be**, or **might have been**? The first half of the dissertation concerns ontology: are the apparent disputes over the existence of merely past, merely future, and merely possible entities genuine and nontrivial disputes? After demarcating the various positions one might take in these disputes, I argue that the disputes are, in fact, genuine. I then offer—in the second half of the dissertation—a limited defense of presentism, the view that only present things exist. In particular, I defend presentism against one of the most significant classes of objections to it—the class of objections claiming that it cannot account for a variety of past-oriented truths. In giving this defense, I draw on insights from the dispute between modal actualists—those who hold that everything is actual—and their rivals.

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Chapter 1. Temporal and Modal Ontology

1.1 Introduction

There are many things: airplanes, cats, chairs, mountains, etc. And there were many things: dinosaurs, Neanderthals, Julius Caesar, the Library of Alexandria, etc. And (hopefully) there will be many things: lunar bases, flying cars, friendly nanobots, a cure for cancer, etc. Finally, there might have been many things: an eighty-pound cat, a winged horse, a chair made of emerald, a city where everyone is trilingual, etc.

How do these four categories of things differ among each other? It should be easy to start a list. Present things—things such as airplanes and chairs—are available to us. We can see them and touch them. But things that merely were or will be—things such as the tallest Neanderthal in history or the first human lunar base—are unavailable.¹ As much as we wish to shake hands with a towering Neanderthal or gaze upon the grandeur of a lunar base, these things are beyond our grasp and beyond our sight. In these respects, merely past and future things differ radically from present things. And insofar as the philosophical status of non-present things affects the status of the past and the future themselves, then we should allow that the present is different from the past and the future.

Yet this is not to say that the past and future are together of a kind. Far from it, differences between the past and the future are numerous. Three examples. First, the

¹ I use the locutions ‘things that merely were’, ‘merely past things’, etc. to mean ‘things that existed but do not exist presently’. And similarly for ‘things that merely will be’, ‘merely future things’, etc.

past is, by some important measure, closed and irrevocable whereas the future is, by some equal measure, open and malleable: We seem able to affect the course of the future yet we cannot affect that of the past.² Second, we can remember what happened in the past but not what will happen in the future. To expand the point somewhat, although we can come to remember the past by first observing the present, and although we may attempt to *predict* the future (or certain aspects of it), the future nevertheless seems in some fundamental sense beyond our ken. And third, the past, but not the future, causally affects us: Neanderthals, e.g., have causally affected the contents of present-day encyclopedias but future human space colonies have not.^{3,4}

Non-actual possibilities diverge more radically from the present still. Though an emerald chair is a genuine metaphysical possibility—there genuinely could have been one, say, if there had been a sufficiently rapacious king with a love of emerald objects—we cannot perceive any such chair in the least. We cannot causally affect such a merely possible chair nor can it causally affect us. Merely possible objects strike us—or they should strike us—as somehow *more remote* than merely past and future ones.

(‘Remoteness’, of course, here captures a type of conceptual rather than spatiotemporal distance.)

² At least the past and the future strike us as being this way. Specifying, in a rigorous way, precisely what “being closed” and “being open” consist in is no small matter.

³ And by this I mean nothing more than: Neanderthals existed and were casually implicated in a chain of events that contributed to the contents of encyclopedias.

⁴ The the first two differences (irrevocability and memory) seem to depend crucially on the third difference (the forward direction of causation), yet they are not the same differences.

But, perhaps not surprisingly, some philosophers have denied that there are genuine, deep differences between the past, the present, the future, and the merely possible. (Not surprisingly, because philosophers have often made work of denying what seems intuitively clear and defending what seems counterintuitive.) In the philosophy of time, *B-theorists* claim that there is no objective present and hence no objective, metaphysically-significant distinction between the present and the non-present.⁵ And in the philosophy of modality, *modal realists* claim that there is no objective actual world and hence no objective, metaphysically-significant distinction between the actual and the non-actual.⁶ Just what these views amount to will be of key importance to the present discussion.

Since it is helpful for a sustained philosophical discussion to be explicit about its guiding question(s)—its “Big Question(s)”, we might say—here is one of mine:

(The Big Metaphysical Question) How does what **is** metaphysically differ from what **was**, **will be**, or **might have been**?

Many sorts of answers to The Metaphysical Question are possible. We could say that the present is (or perhaps that present objects are) in principle perceivable whereas the mere past, mere future, and merely possible are not. Or we could answer that whereas the past, present, and future are united within a single causal order, the merely possible is causally removed from this order. Both count as answers to The Metaphysical Question, for both make metaphysical demarcations among the categories.

⁵ Two prominent defenses of B-theory are Mellor (1998) and Sider (2001).

⁶ The most prominent defense of modal realism is Lewis (1986).

However, we may narrow our focus. For one especially striking class of answers to The Metaphysical Question is ontological: what is, was, will be, and might have been differ chiefly with regard to *whether they exist*. This is not a single answer but rather a class of answers. We could hold that while the present exists, the non-present and the merely possible do not. Or we could hold that while the past, present, and future exist, the merely possible does not. Both of these answers fall within the ontological class, for they demarcate solely with regard to existence. Of course, other, stranger answers also fall within the ontological class. For any combination of ontological views about the past, present, future, and merely possible counts as a possible answer to The Metaphysical Question. We could—if we wished—proclaim that the future exists but that the past, present, and merely possible do not. Or that the merely possible alone exists. It is hard, of course, to imagine anyone genuinely accepting such bizarre and unmotivated views. But these are indeed views within the space of ontological answers to The Metaphysical Question.

Let us then narrow The Metaphysical Question to its ontological component⁷:

(The Big Ontological Question) What are the ontological differences among what **was, is, will be, or might have been**?

⁷ I assume that The Ontological Question is a proper sub-question of The Metaphysical Question in the following sense: Any ontological difference among the past, present, future, and merely possible counts as an ipso facto metaphysical difference among them. Thus, for example, to hold that the present exists but the non-present does not is to hold that the present metaphysically differs from the non-present in respect of existence. But not every metaphysical difference among these categories counts as an ontological one. For example, to hold that the present is in principle perceivable but the non-present is not perceivable is to hold that they differ metaphysically but not, necessarily, that they differ ontologically.

This dissertation will investigate both Big Questions. In particular, it will approach these questions from three angles. First, in the present chapter, I ask what sorts of answers to The Ontological Question are possible. That is, the present chapter demarcates the major ontological views about time and modality. In chapter 2, I investigate *the status of* The Ontological Question itself. Why believe that The Ontological Question has a significant answer? Why believe that we should ask this question in the first place? In chapters three and four, I examine some implications of answering The Ontological Question in a certain way. In particular, I examine some major arguments against treating the present as ontologically special, and I connect these arguments to parallel ones against treating the actual as ontologically special. To employ terminology that we will now explore, this chapter and chapter two are concerned, broadly speaking, with understanding what, exactly, are the views of presentism and actualism and how these views genuinely differ from their rivals. Chapters 3 and 4 offer a limited defense of presentism—the view that everything is present—against some major objections. In giving this defense, I draw on insights from the dispute between modal actualists—those who hold that everything is actual—and their rivals.

Before proceeding, a brief note about some textual conventions that I adopt starting now. I use italics for emphasis, when introducing new technical expressions or names of theories (e.g. *modal realism*), and to denote propositions (e.g. *that Caesar crossed the Rubicon*). I use bolded expressions to emphasize a tenseless construction—e.g. ‘**exist**’ or ‘**is**’ to indicate that I mean ‘exist tenselessly’ (‘exist simpliciter’) or ‘is

tenselessly’ (‘is simpliciter’) rather than ‘exist presently’ or ‘is presently’—in cases where an incorrect reading might undermine, or render confusing, what I say. I will shortly say more—and I will say much more in chapter two—on what I mean by the equivalent terms ‘exist tenselessly’ and ‘exist simpliciter’, as their use is crucial to much of what I say. Finally, a comment on the pronouns ‘he’ and ‘she’. To entirely avoid their use is sometimes difficult or cumbersome. But to exclusively pick one or the other is to potentially engender certain biases. I therefore choose to alternate my use of these pronouns—chapters 1 and 3 get ‘she’, chapters 2 and 4 get ‘he’. I hope the reader finds this alternation not distracting.

Before turning to the main task—demarkating the ontological views—we take a brief but important detour into the metaphysics of tense that will, I believe, prove useful.

1.2 Tense: the A-theory and the B-theory

J.M.E. McTaggart (1908) gave philosophers of time an excellent gift: the distinction between *the A-series* and *the B-series*. This distinction amounts to a distinction between two fundamentally distinct ways of thinking about time. A B-series is an ordering of events in terms of the relations *earlier than* (or *later than*) and *simultaneous with*. The B-series consisting of all the births of famous musicians tells us, for instance, that Elvis’s birth was earlier than Buckethead’s and that J.S. Bach’s birth was earlier than both. Similarly, a *B-time*—in effect, a date—is a way of locating events on a B-series. Elvis’s and Buckethead’s births, e.g., have B-times of January 8, 1935 and May 13, 1969,

respectively. (If a B-series contains all events and B-times whatsoever, we'll call it *the* B-series.)

Now take some event on a given B-series—say, the event of your reading this sentence—and bestow upon it the property of *being present*. The bestowing of this property is sufficient to generate an A-series, an ordering of events in terms of their pastness, presentness, or futurity. An A-series of famous musician births would tell us, for instance, that Elvis's birth is past and—assuming that Elvis turns out to have a famous musical great-great-granddaughter—that Elvis's great-great-granddaughter's birth is future. Analogously, an *A-time* is a way of locating and comparing events on an A-series. Elvis's and Buckethead's births have A-times, as of my writing this, of 77 years past and 43 years past, respectively. (Here again, if an A-series contains all events and A-times whatsoever, we'll call it *the* A-series.) The A-series/B-series distinction is, put differently, a distinction between *tensed* and *tenseless* notions of time.

McTaggart famously used the A-series/B-series distinction to argue that time is unreal. In broad strokes, his argument went as follows. Time requires *genuine change*. But genuine change requires the A-series. That is, genuine change is possible only if events pass from being future to being present to being past. However, the A-series cannot exist—events cannot really go from from future to present to past—for the A-series is inherently contradictory. Therefore, genuine change cannot exist, and so time is unreal. Why did McTaggart believe the A-series to be inherently contradictory? For a simple reason: Take any event, *E*. If the A-series exists, then *E* is past, present, and

future. But nothing can be past, present, and future—these properties are contraries.

Therefore, the A-series cannot exist.⁸

McTaggart's argument has proven among the more contentious in metaphysics. Contemporary philosophers of time, though they take the A/B distinction seriously, do not generally take McTaggart's conclusion very seriously. Few if any follow him in concluding that time is unreal. But many take McTaggart's meditations on time seriously insofar as they take McTaggart to have shown us how to distinguish two fundamentally opposed views of time, the *A-theory* and the *B-theory*. According to the B-theory, time *just is* the B-series, a tenseless series of events, linked by the primitive relations *earlier* (or *later*) *than* and *simultaneous with*. On this picture, a metaphysically-complete account of time needn't invoke the primitive (unanalyzable) A-properties of *being past*, *being present*, or *being future*. Rather, B-theorists hold that the B-series is alone sufficient to explain temporal order and variation and, hence, to explain time.⁹

B-theorists do not, however, reject all tensed talk. They may admit that tensed truths—e.g. *that I am now listening to a Glenn Gould album*—are inalienable from human thought and language while also maintaining that such truths are reducible to B-theoretically acceptable ones. In offering his “token reflexive” B-theory Mellor (1998)

⁸ Broad (1938: 309-317) called McTaggart's argument “a howler”. For reconstructions and evaluations of the argument, see also McDaniel (2010), Mellor (1998: 70-83), the papers in Oaklander and Smith (1994), and Tooley (1997: 325-331).

⁹ See Mellor (1998: 70-95). For B-theorists, change simply involves an object's instantiating different properties at different times—e.g. a poker changes from hot to cold just in case it is hot at one time, t_0 , and then cold at a later time, t_1 . The B-theorist thus offers an analog to the spatial view of change—e.g. a road changes from straight to curved just in case it is straight at one location, l_0 , and curved at some other location, l_1 .

claims that B-theorists may allow A-truths (tensed truths), however they will maintain that such truths are *made true* entirely by B-facts, facts about which B-relations hold among events or times. On Mellor's view, my assertion *that I am now listening to a Glenn Gould album* is made true by the B-fact that my assertion is simultaneous with my listening to a Glenn Gould album.¹⁰ The B-theory offers, at bottom, a tenseless picture of reality, one that makes no use of the metaphysically-special properties of pastness, presentness, and futurity.

According to the A-theory, there is more to time than the B-series: A metaphysically-complete account of time must invoke, in addition to the B-series, the special property of *being present*. Moreover, presentness is not in any way reducible to tenseless B-theoretic concepts—a complete account of time requires the “special glow” that only the privileged, objective present can provide. On this picture, my assertion *that I am now listening to a Glenn Gould album* is made true by the A-fact that my listening to a Glenn Gould album has the property of *being present*.¹¹ McTaggart's legacy might then be best summed up not as his having given us an argument that time is unreal but rather as his having given us the highly useful A-theory/B-theory distinction plus a controversial argument that the B-theory of time prevails over the A-theory.

The foregoing suggests general formulations of these two theories of time:

¹⁰ On B-theoretic reductionism about tense, see also Sider (2001: 12-14), the papers in Oaklander and Smith (1994), and Tooley (1997).

¹¹ Similarly, the A-theorist accounts for change—e.g. the change in the hotness of a metal poker—by saying that whereas the poker was hot, it is now cold.

(A-theory) Some things have the A-property of *being present*. This property is genuine and irreducible; it cannot be analyzed in terms of merely B-theoretic (tenseless) properties or relations, e.g. *earlier than*, *later than*, or *simultaneous with*.

(B-theory) There are no irreducible A-properties of *being past*, *being present*, or *being future*. Rather, truths involving such tensed concepts are to be understood entirely in terms of B-theoretic (tenseless) properties or relations, e.g. *earlier than*, *later than*, and *simultaneous with*.¹²

This formulation of the A-theory states that some things have the property of *being present*. Which things? Presumably, A-theorists will hold that B-times instantiate A-properties—e.g. when April 3, 2103 is the present day, this B-time will instantiate the A-property of *being present*. And while I have also characterized the A-theory/B-theory distinction in terms of the intuitive idea that events have tensed properties, this distinction could equally be characterized in terms of concrete objects—e.g. tables and chairs and dinosaurs and flying cars—having tensed properties. In both cases, it is natural to say that an event (e.g. The Tour de France) or an object (e.g. The Eiffel Tower) instantiates the property *being present* just in case it exists at a moment of B-time that also instantiates this property.¹³ But for the purpose of generally defining the A-theory, what

¹² But for a somewhat heterodox view on the distinction between tensed and tenseless theories of time, see Tooley (1997: 11-42)

¹³ Caution is needed, for B-times can be characterized as widely or narrowly as we wish. For instance, the 21st century is a B-time, and so is 6:13PM on June 3, 2017. (On characterizing B-times, see Mellor (1998: 7-18)). But if The Eiffel Tower is demolished in 2015—say, to make room for a newer, larger tower—then it would be true that The Eiffel Tower existed in the present (21st) century but not true that The Eiffel Tower will exist on June 3, 2017 at 6:13PM. And so it would be false to assert, on June 3, 2017, that The Eiffel Tower exists presently on the grounds that it existed in the present century. We should therefore let the relevant principle—that an event or an object instantiates the property *being present* just in case it exists at a B-time that also instantiates this property—be interpreted to mean a *maximally narrow* B-time (a literal moment), e.g. June 3, 2017 at precisely 6:13PM. If so, then The Eiffel Tower does not count as a present object on June 3, 2017, for it does not exist at any of the moments during this day.

matters is just that some category of thing (e.g. times, events, objects) be endowed by the A-theorist with the glow of genuine presentness.

Moreover, while the A-theory is naturally described as one where events, in addition to having the A-property of *being present*, also have the A-properties of *being past* or *being future*, the most general formulation of the theory should leave out the latter properties. The reason is that, as we shall see, presentists, who say that merely past and merely future objects and times are nonexistent, are A-theorists. Since presentism is compatible with there existing no things that have the properties of *being past* or *being future*, the proper definition of the A-theory should avoid including these properties.¹⁴ But this is no problem. Whether or not a theory includes the property of *being present* should alone be sufficient to demarcate all versions of the A-theory from all versions of the B-theory. Some versions of the A-theory may additionally say that some things have the properties of *being past* or *being future*.

We now turn to the key philosophical task of this chapter: formulating the ontological views. I undertake this task with little if any regard for motivating the views themselves; reasons for accepting or rejecting any view will be put on hold.

¹⁴ As will become apparent, presentism is also compatible, it seems, with things having the properties *being past* and *being future*, so long as the things in question also have the property *being present*. The Eiffel Tower, e.g., is something that may, even on presentism, have all three properties, for the Eiffel Tower existed, exists, and will exist. But the crucial point here is that presentism is compatible with nothing having the properties *being past* or *being future*, for presentism is compatible with all the existing (present) objects being such that they did not exist a moment ago and will not exist a moment from now.

1.3 Presentism and its Rivals

We begin with the *prima facie* intuitively-appealing view that there is something special about the present. It is only present things, we might say, that truly exist. Call this view *presentism*.¹⁵ Presentism is sometimes said to offer a “three-dimensional” view of time according to which there is no temporal distance between any two things.¹⁶ On this view, you and I and all the objects in the universe whatsoever exist at one time and one time only: the present one. Neither the long-dead Roman emperors nor the exciting nanoswarms of the future exist at any temporal distance from us—these things are simply nonexistent, unreal, *entia non grata*. On the presentist picture, we can therefore think of the universe (the world) as a sort of three-dimensional expanse, extended in space but not time.¹⁷

Presentists are not foes of common sense. Indeed, presentists are fond of claiming that their view is the common-sense, default position.¹⁸ Consider the historically-demonstrable claim *that Julius Caesar existed*. Presentists will embrace this

¹⁵ For defenses of presentism, see Bigelow (1996), Crisp (2003), Markosian (2004), Merricks (2007), Prior (1970), and Zimmerman (2007).

¹⁶ See, for example, Crisp (2007: 130-131).

¹⁷ For this reason, presentism is sometimes said to endorse a “momentary” view of existence: only the present is real, but the present is just a single moment, and so only a single moment is real. Whether or not this is an accurate characterization of presentism depends, I think, on how the presentist should characterize the present. Is the present indeed just a moment, an infinitesimally-thin “slice” of time? I will not attempt to answer this question, for it takes us afield, and I do not think the answer has much bearing on what follows.

¹⁸ Bigelow (1996), Markosian (2004), Merricks (2007: 137-142), and Zimmerman (2007) accord presentism with the virtue of common-sense and, hence, the endorsement of “the man on the street”. (Or, at the very least, they treat presentism as being the *intuitively plausible* view.) Philosophers notoriously differ on the general extent to which this endorsement—like that of the shady politician or the corrupt town boss—is worth having.

claim. They maintain, however, that this claim is not equivalent—or reducible—to the claim that Caesar is located at some past temporal region (some past time).¹⁹ Thus, the truth of *that Caesar existed* is held to be compatible with Caesar’s nonexistence, and the truth of past-oriented claims must generally be understood in some other way—i.e. some way other than existing, concrete things being located in the past—or else treated as primitive.²⁰ To this end, presentists typically help themselves to tense operators—WAS and WILL—that allow them to regiment past- and future-tensed claims in ontologically-noncommittal ways. For instance, *that Caesar existed* is to be understood as something like the ontologically-noncommittal *WAS(that Caesar exists)*.²¹ WAS and WILL are to be understood as “slice operators” that represent what was true or will be true at some past moment of time—e.g. *WAS(that dinosaurs exist)* says that at some past moment, dinosaurs existed. (I will say more about these operators later, in §1.5.) Generally speaking, presentists wish to uphold the canon of common-sense and historically-demonstrable truths, the truths accepted by the average citizen and the truths written down in the history books.

¹⁹ See Merricks (2007: 123). Note that as a consequence, presentists will deny that the truth of *that Caesar existed* is grounded by a concretely-existing Caesar who is located in the past. This has led some to criticize presentism for failing to provide truthmakers for past-oriented truths. This so-called “grounding objection” to presentism will be explored at length in Chapter 3.

²⁰ See Bigelow (1996), Bourne (2006), Cameron (2011), Crisp (2007), Keller (2004), Kierland and Monton (2007), Merricks (2007: 74-80 and 119-125), Sider (2001: 35-42), Szabó (2007), and Tooley (1997: 234-240).

²¹ See Sider (2001: 15).

Contraries of presentism are said to offer a “four-dimensional” alternative view of time.²² The two most prominent such views are *eternalism*, according to which the past and the future are just as real as the existing present, and *the growing block view*, according to which the past and present exist but the future does not.²³ Eternalists picture the world as an eternally-existing, four-dimensional block where all times are equally real. Growing block theorists pictures the world as a four-dimensional block that perpetually grows as time passes. On eternalism, the flying cars of the future are as real as the presently-existing cars that drive on roads; on the growing block, the flying cars are not now within the whole of being, though the four-dimensional block will eventually grow to include them. On both views, we should think of the universe (the world) as a sort of four-dimensional expanse, extended in both space and time. Both views say that some existing things stand at a temporal distance from us—e.g. on both views, a temporal distance of over ten-thousand years separates you and the neanderthals that exist in the past. Though now long dead, the neanderthals are no less real than us—they have no less claim to existing—merely in virtue of their temporal location in the past.

²² I here use the term “four-dimensional” to identify views—e.g. eternalism or the growing block view—about temporal ontology. But “four-dimensionalism” is sometimes also used to name a certain view about persistence through time, viz. one whereby objects persist by having instantaneous temporal parts, e.g., Sider (2001). Yet the issue of temporal ontology is potentially connected to that of persistence. Merricks (1999), for example, argues that a three-dimensional view of persistence (i.e. endurantism) entails a three-dimensional view of temporal ontology (i.e. presentism).

²³ For defenses of eternalism, see Lewis (1986), Mellor (1998), Rea (2003), and Sider (2001). For defenses of the growing block view, see Broad (1923) and Tooley (1997).

What relation do these three ontological views have to the A-theory/B-theory distinction? First, presentism entails the A-theory, for presentism requires an objective present in order to make an objective distinction between the existing present and the nonexistent non-present. Second, the growing block also entails the A-theory, for it too requires an objective present in order to make an objective distinction between the existing (past and present) regions of the block and the nonexistent future. Without a metaphysically-significant notion of the present, neither presentism nor the growing block view get off the ground.²⁴ Finally, eternalism entails neither the A-theory nor the B-theory, for there are both A-theoretic and B-theoretic versions of eternalism. Eternalism plus the B-theory is the view that the world is a tenseless, four-dimensional block where all times are equally real and there is no metaphysically-special property of presentness. On this view, my assertion, e.g., *that it is now raining* serves to locate itself within a certain rainy region of the four-dimensional block. Eternalism plus the A-theory, on the other hand, is often called *the moving spotlight view*. As before, the world is a four-dimensional block where all times are equally real, but now, on top of the block

²⁴ What would a B-theoretic version of presentism or the growing block look like? Consider two individuals in two different eras: J.S. Bach, composing with his harpsichord in 1710, and Buckethead, composing with his electric guitar in 2012. Suppose that both individuals, in a strange act of ontological inspiration, utter the sentence “only present things exist”. Does either speak truly? By the lights of A-theoretic presentism, Bach speaks truly in 1710 when his utterance is genuinely present, and Buckethead speaks truly in 2012 when his utterance is genuinely present. But according to B-theorists—who favor a reduction of the tenses to purely tenseless notions—there is no real fact of the matter about which assertion is present. The B-theorist says that both musicians, in uttering this sentence, thereby assert something to the effect *that the only existing things are the things simultaneous with this very utterance*. Since these two assertions do not overlap, only one of them (at most) can be true. Which one, if any, is true? The answer is that, by B-theory lights, there is no principled way of assigning truth to one but not the other assertion. By B-theory lights, both Bach and Buckethead say something false about the region of the tenseless, four-dimension block that they occupy. This illustrates, I think, that there is no such thing as B-theoretic presentism—the two views are incompatible at heart. Similar reasoning shows that B-theory and the growing block view are incompatible.

itself, we add a special glow of presentness (a spotlight) that moves across the block. On this view, my assertion *that it is now raining* servers to indicate that the spotlight is now pointing at a rainy region of the block. The moving spotlight is notably the only A-theoretic view where the special fact of presentness is entirely independent of what **exists**. For example, on the moving spotlight, when the dinosaurs went extinct and some new creatures—say, the mammoths—emerged, the dinosaurs did not cease to **exist** (they remained a part of the block universe) nor did the mammoths begin to **exist**, but, rather, the glow of the spotlight simply moved from one existing epoch (the dinosaur epoch) to another existing epoch (the mammoth epoch).

In formulating these ontological views, it is crucial that we use ‘**exist**’ to mean ‘exist simpliciter’ (or, equivalently, ‘exist tenselessly’). The presentist’s distinctive claim is *not*, after all, the trivially true claim that only present things exist presently (i.e. ‘exist’ in the present tense sense), nor is it the demonstrably false claim that only present things existed, exist, or will exist (plenty of non-present things—e.g. dinosaurs—existed). Rather, the presentist’s distinctive claim is that only present things *exist full-stop* (exist simpliciter), that only present things are within the whole of reality in an unrestricted sense. Or, at any rate, this is our first pass on presentism. As we will see, the thesis requires refinement. I consider the issue of existence simpliciter in greater detail in the next chapter. For now, it will suffice to say that formulating presentism—and formulating the other views of temporal and modal ontology—requires a tenseless,

temporally-unrestricted notion of existence; without such a notion, temporal and modal ontology can hardly get off the ground.²⁵

It is a notable feature of these three ontological views that they disagree about the claim that what **exists** changes over time. For eternalists, that which **exists**—that which is within the range of our most unrestricted quantifier—is eternally fixed: We can at all times quantify over all of what did, does, and will exist throughout the history of the four-dimensional block universe. For this reason, we can say that eternalism offers a *static* view of ontology. But for presentists and growing block theorists, that which **exists**—that which is within the range of our most unrestricted quantifier—changes over time. According to these views, new objects—objects that were once merely future and hence nonexistent—are perpetually coming into existence and hence into the range of the unrestricted existential quantifier. We can therefore call presentism and the growing block theory *dynamic* views of ontology.²⁶ Yet all sides of the debate—presentist, eternalist, and growing-block theorist alike—agree *that dinosaurs existed* is true and *that dinosaurs exist presently* is false. Generalizing, all sides of the ontological debate should agree over the truth-values of *tensed existence claims*—such claims are just empirical,

²⁵ See also Crisp (2004), Sider (2001: 15-17), and Sider (2006). One additional complication: There are arguments against the possibility of talking about (quantifying over) absolutely everything. See, for example, Cartwright (1994) and the papers in Rayo and Uzquiano (2006). Might such arguments undermine the intelligibility of existence simpliciter? Fortunately, as Sider (2006) points out, the intelligibility of the dispute between presentism and its rivals needn't hinge on the possibility of *absolutely unrestricted* quantification (including quantification over all sets). Rather, the dispute merely hinges on the possibility of quantification over certain sorts of *temporal objects*, namely, merely past and merely future ones.

²⁶ The usage of 'static' and 'dynamic' is similar to that of Tooley (1997: 11-16) who uses 'dynamic' to pick out views whereby "which states of affairs exist depends on what time it is."

non-philosophical existence claims and so cannot serve to distinguish static and dynamic views.

The descriptions of presentism and its contraries as being, respectively, three- and four-dimensional is helpful, I think, to grasping what sort of ontological picture they paint. So, I hope, is the contrast between static and dynamic ontological views. Yet given that presentism plays a prominent role in chapters to come, it will be helpful to be able to rigorously formulate the view. Here, then, is our first attempt:

(Presentism α) Only present things **exist**.

I use ‘thing’ in the most inclusive way possible: Concrete objects, e.g. tables and chairs, are things and so are abstract objects, e.g. the universal *redness* and the number two. And so are events, facts, times, locations, or things of any category you care to name; these are all things in my usage. (This is why, on my usage of ‘thing’, it is redundant to claim that only present things and the present time exist. The present time, whatever it is, is a present thing.)

But there is an immediate problem with treating presentism as the view, simply, that only present things exist. Abstract objects—e.g. the number two—are, on a certain natural understanding of abstractness, not to be counted as present things. Yet neither should abstract objects be excluded by the ontology of presentism. Presentism rules out the existence of merely past and future things: dinosaurs, lunar bases, and the like. Presentists *qua presentists* should not rule out the existence of abstract objects, for

presentists *qua presentists* should stay neutral about the ontological status of abstract numbers, properties, propositions, and the like.

In what sense are abstract things not to be counted as present things? Take the number two. Supposing it exists, is it a present thing? In a certain trivial sense, yes. After all, if the number two exists, then it is trivially true to say, at the present time, that it exists. Yet this is not the relevant sense of ‘present thing’ at issue in the definition of presentism. It is the temporal location (or lack thereof) of the number two, and *not* the temporal location of any question about the number two, that we wish to know in order to settle the ontological question. And I take it for granted that there are platonic views of numbers whereby the number two simply has no location, temporal or otherwise.²⁷ By the lights of such views, the following claim is a necessary, a priori truth:

(1) The number two **exists**, but it does not exist in the present.

Such a platonic view of numbers is plainly inconsistent with the claim that only present things exist. But, as we’ve seen, it should not be inconsistent with presentism. What fix is needed? Apparently, the presentist thesis ought to pertain to temporal objects alone. Recall that we previously characterized presentism as offering a three-dimensional view of reality in the following sense: no two things stand at a temporal distance. Might this idea offer the needed fix?

(Presentism β) There is no temporal distance between any two things.

²⁷ The literature on platonism is enormous. But see, for example, Linnebo (2009) and Maddy (1990).

Since atemporal objects are not temporally related to anything, they are no exception to Presentism β .²⁸ Unfortunately, this revision will not suffice. Consider a bizarre ontologist who we will label “The Extreme Gettysburg Ontologist”. This ontologist believes that only one type of thing **exists**: just those things that existed at the very first moment of the Gettysburg Address, during the American Civil War.²⁹ The Gettysburg Ontology is consistent with no two things standing at a temporal distance; on this ontology, everything **exists** at a single moment in the nineteenth century. The Gettysburg Ontologist must believe, oddly enough, that nothing exists presently, on pain of conceding that some things exist other than those things that existed at the first moment of the Gettysburg Address. The fact that this ontological view is both ludicrous and without an iota of motivation is besides the point. All that matters for our purposes is that it is a view occupying a different position in logical space than presentism. Since such a view is indeed inconsistent with presentism properly understood, Presentism β fails as a proper formulation.

Rather than treating the presentist thesis as one concerned with the temporal distance between objects, we should try simply *restricting* the thesis to one concerning temporal objects:

(Presentism γ) All the temporal things **are** present things.

²⁸ I use ‘atemporal things’ as shorthand for ‘things that exist outside of time’. Similarly for ‘atemporal existence’.

²⁹ Presumably, some moment on the afternoon of Thursday, November 19, 1863. Ignore the complication that, if we are to put on our vagueness hats, we should say that the Gettysburg Address had no determinate first moment. To make the needed point here, all that matters is that our fictional ontologist believe solely in entities that exist at some single non-present moment.

This is better. Presentism γ excludes past and future things but not, necessarily, atemporal things. Relatedly, we might ask where Presentism γ stands with respect to so-called meinongian ontology, the thesis that, in addition to there being *existing* objects, there are also *nonexistent* objects.³⁰ First, we might ask whether meinongianism is generally compatible with presentism—could there be a coherent meinongian presentist who embraces nonexistent objects? Second, we might ask whether this meinongian presentist takes her meinongian, non-existent objects to be temporal objects and, if so, whether she takes them to adhere to presentist strictures. In the echelon of strange philosophical views, meinongianism surely holds lofty rank. And although I find meinongianism to be a strange view indeed, and although I will assume its falsity in the chapters to follow, I wish to remain as neutral as possible with respect to its truth when formulating presentism. But, fortunately, Presentism γ is entirely silent on whether there are nonexistent objects *tout court* and hence on whether meinongianism is minimally true. For Presentism γ constrains meinongianism in only a very minimal way. Since the quantifier involved here—“all of the temporal things”—is meant to quantify unrestrictedly over temporal things (and thus, given the truth of meinongianism, to quantify over any nonexistent temporal things), Presentism γ merely commits the meinongian to holding that if her nonexistent objects are temporal objects, then they are

³⁰ See Marek (2009). Meinong’s nonexistent objects include such impossible objects as the round square and, perhaps, paradoxical objects such as the liar proposition *that this proposition is false*.

present ones.³¹ Since it is unclear whether the Meinongian's nonexistent objects are meant to exist in time, it is hard to say whether this amounts to a significant constraint.

But we are not yet done. For Presentism γ says that all temporal things are present things. But it does not say anything about whether the temporal things always *were* or *will be* present things. And this is problematic. For consider another outlandish ontologist, The Flashing Future Ontologist, who believes that the past is nonexistent, the present exists, and the future “flashes” in and out of existence according to the following scheme: when an odd-numbered year is the present year, the future is as real the existing present; when an even-numbered year is present, the future is entirely nonexistent. Thus, according to this ontologist, when 2011 was the present year, Presentism γ was false. But now, as I write this in 2012, The Flashing Future Ontologist believes that Presentism γ is true.³² Is this ontologist a presentist? If she is, then she is an unfortunately unstable one. Better, I think, to say that presentism requires a stable rather than temporary commitment to an ontology of present things:

(Presentism δ) It is always true that all the temporal things **are** present things.

This formulation is firmer and better still. But a question arises: Are presentists entitled to use a sentential (or propositional) operator—the ALWAYS operator—via which

³¹ In the Quinean tradition of ontological commitment, existence is the same as quantification, and asking “what exists?” is the same as asking “what is there?” In the chapters to follow, I will firmly wear the Quinean hat (or vest or decorative scarf or whatever Quineans wear to signify their allegiance to the Quinean dictum). But, of course, Meinongians reject the Quinean tradition, for they believe that there are some nonexistent objects. So, in considering whether presentism is compatible with there being nonexistent objects, it is helpful to temporarily suspend the Quinean dictum and allow the conceptual possibility that there might be some nonexistent things that we can quantify over.

³² Assume that this Flashing Future Ontologist is an A-theorist: she believes that there is an objective fact of the matter about which time is the present one.

Presentism δ can be understood? We might observe that, since ALWAYS looks like a quantifier over all past, present, and future times, there is reason to be suspicious.

I do not think that ‘always’ poses a problem here, however. We noted that presentists already help themselves to ontologically-opaque tense operators—WAS and WILL—in order to understand tensed claims in presentist-friendly ways. Just as WAS and WILL are not to be understood as quantifiers over (concrete) past and future times, neither are ALWAYS and NEVER to be so understood.³³ Fortunately, ALWAYS and NEVER can be defined in terms of the tense operators. ALWAYS(φ) is true just in case \sim WAS($\sim \varphi$) & φ & \sim WILL($\sim \varphi$).³⁴ Similarly, NEVER(φ) is true just in case \sim WAS(φ) & $\sim \varphi$ & \sim WILL(φ). Therefore, if presentists are permitted use of WAS and WILL, they should be permitted use of ALWAYS and NEVER as well. The definability of ALWAYS and NEVER in terms of WAS and WILL seems to show that so long as WAS and WILL can be understood as something other than quantifiers over non-present times, then so can ALWAYS and NEVER. Of course, this is not to say that WAS and WILL are themselves unproblematic for presentists—far from it, there are non-trivial objections to the presentist’s use of tense operators, objections that I consider below, in §1.5.

The temporally-restricted formulations, Presentism γ and δ , have an interesting implication concerning worlds devoid of concreta. For consider yet another character in

³³ The operators may, however be understood by ersatz presentists—e.g. Bourne (2006) and Crisp (2007)—as quantifiers over *abstract* times.

³⁴ Just as WAS(*that there are dinosaurs*) does not ontologically commit to any past time that contains dinosaurs, similarly, ALWAYS(*that there are electrons*) does not commit to past and future times that contain electrons.

our parade of eccentric ontologists, The Extreme Platonic Ontologist. According to her, the only things that **exist** are abstract, atemporal things; no temporal objects **exist** whatsoever. This view is compatible with the temporally-restricted formulations, Presentism γ and δ . If only atemporal things exist, then nothing whatsoever is a temporal thing, and Presentism γ and δ are trivially satisfied.³⁵

It is perhaps tempting to reply that, upon reflection, Extreme Platonism is simply a counterexample to the thesis that Presentism δ properly formulates presentism. The presentist worldview is not most naturally understood, the objection might go, as one merely where the past and future are nonexistent; it is also one where the present **exists**. It is therefore natural to say that the ontology of our Extreme Platonist is incompatible with presentism precisely because Extreme Platonism includes no presently-existing things.

I want to resist this tempting reply. First, I concede that the choice to *require* presently-existing things on presentism is, at least to some degree, a matter of terminological preference. It is perhaps therefore somewhat a matter of preference whether to label Extreme Platonist worlds as presentist worlds.³⁶ Yet I also maintain that

³⁵ Does the Extreme Platonic Ontologist believe that time itself is unreal? Suppose so. Is Presentism δ nonetheless true by her lights, given that it requires a certain claim—viz. that all temporal things are present things—to be *always* true? Presumably, yes, for if the truth conditions of ‘always’ involve the embedded claim being true for all times, then the Extreme Platonic Ontologist believes that, whereas there are no times, all claims of the form ALWAYS(ϕ) are trivially true.

³⁶ I find it useful to speak of “extreme platonist worlds” or “presentist worlds” or “eternalist worlds”. To the extent that ontology is invariant across worlds, this talk may be misleading, since it seems to imply that the existence of the past or future could vary from world to world—e.g. in some worlds the future exists and in others it does not. Nonetheless, I hope that the reader will permit me this useful device. I intend the phrase “a presentist world” to mean simply “a world where the presentist thesis, whatever that is, holds”. And mutatis mutandis for “extreme platonist world”, “eternalist world”, etc. Of course, if it turns out that presentism is a necessary truth, then all worlds are presentist worlds.

there is some pressure to allow such worlds on presentism. This pressure comes from the fact that it seems more elegant and ontologically-perspicuous to view presentism not merely as a thesis about which concrete things *happened to exist* (only the present ones) but rather as a thesis about *what it means to exist*. Presentism γ is concordant with this pressure insofar as it captures the following idea that presentists should find attractive: to exist, in the temporal sense, is just to be a present thing. And Extreme Platonist worlds, regardless of whether they are genuinely possible, are no threat to this attractive idea: since Extreme Platonist worlds are devoid of temporal objects, they are no threat to the idea that existence, in the temporal sense, is just present existence. In fact, let us explicitly add this idea as a possible formulation:

(Presentism ϵ) To exist temporally is to be a present thing.
A key question is whether—or to what extent—Presentism δ and Presentism ϵ say the same thing. I do not think they say quite the same thing. For a claim that concerns not merely *what happened to exist* but rather *what it is to exist* seems most naturally understood as a strong modal claim. If I tell you that only present things exist, I have told you something that, if true, is only contingently so. But if I tell you that to exist *just is* to be a present thing, I seem to have said something much stronger, viz. that, necessarily, everything is present. This leads us to a modally strong formulation:

(Presentism ζ) Necessarily, it is always true that all the temporal things **are** present things.

We might think that the addition of necessity removes the need for the temporal qualifier, ‘always’. After all, if *necessarily*(φ) is true, then how could there ever be a time when φ is false?

But I take it that whether *necessarily*(φ) entails, by presentist lights, *ALWAYS*(φ) depends on the sort of temporal and modal logic that presentists adopt, and, in particular, on how presentists choose to represent possible worlds. Eternalists standardly think of a possible world as a four-dimensional “total history item”, one that encompasses an entire past, present, and future.³⁷ On the eternalist conception of possible worlds, it is natural to infer *ALWAYS*(φ) from *necessarily*(φ), for the latter represents that φ holds across every world and hence—by the four-dimensional conception—across all temporal regions of each four-dimensional block.³⁸ But if, as presentism maintains, the whole of temporal being includes only present things, and if presentism is a thesis with modal force, then presentists may wish to think of a possible world not as a four-dimensional “total history” but rather as a momentary slice of that history, one corresponding to the present time. Of course, presentists need not conceptualize possible worlds in this way—but it is one way of conceptualizing them. Now, supposing that we conceptualize worlds in a three- rather than four-dimensional way, then *necessarily*(φ) does not entail *ALWAYS*(φ). For if each

³⁷ See, e.g., Lewis (1986).

³⁸ Counterargument: Imagine a theist who believes that god and Earth exist in every possible world and that, in every possible world, god will experience a moment of anger whereupon he floods the Earth. It seems natural for our theist to assert *that, necessarily, The Flood occurs*. By this, our theist means only that, no matter how things turn out, god will unleash The Flood—she does not mean that god is, in every possible world, perpetually flooding Earth. Ergo, *necessarily*(φ) seems not to be a priori equivalent to *necessarily, ALWAYS*(φ). On the other hand, perhaps we can account for the theist by saying that her claim is most naturally understood as the claim that *necessarily*(*WAS*(φ) or φ or *WILL*(φ)).

world, w , is (or represents) a momentary slice of being—viz. the moment that is present (relative to w)—then each presentist world is akin to *a way that the present might have turned out*. On this picture, each true possibility claim tells us something about *how the present might have turned out*, and each true necessity claim tells us something about *how the present must have turned out*.³⁹ And so, on this picture of worlds, if I wish to say something about how every possible world is at every possible time, I must temporally qualify my necessity claim with ‘always’.

But there is a downside to this way of depicting possible worlds. Namely, it seems very natural to infer *possibly*(φ) from *WAS*(φ), for it seems very natural to infer the metaphysical possibility of some state of affairs from the claim that the state in question obtained in the past. But on the momentary, three-dimensional picture of worlds, this inference fails: on this picture, *possibly*(φ) is equivalent to the claim *that φ could have been presently true* and hence does not entail *WAS*(φ). Ontologically speaking, this conception says that we cannot infer what *could have been* within the whole of reality on the basis of what *was* or *will be* within the whole of reality. The logic that underpins three-dimensional worlds may be therefore undesirable. And this may push presentists to

³⁹ It would be an excellent exercise in philosophical logic to work out the temporal and modal logic that results from the three-dimensional, momentary conception of worlds. Such an exercise is beyond my scope here. But we might tentatively observe that such a logic could operate with a 2-dimensional system of accessibility relations—the first dimension acts as a “temporal” relation that links the various momentary worlds that together form a total “world history”; the second dimension acts to link corresponding moments across modal space. By four-dimensional lights, the first relation would appear akin to an ordering of moments within a given world. The second would appear to be a trans-world relation between corresponding moments.

move to a more standard four-dimensional conception of worlds.⁴⁰ With such a move, the presentist permits the inference from *necessarily*(φ) to *ALWAYS*(φ), and we may then drop the temporal qualification in our formulation:

(Presentism η) Necessarily, all the temporal things **are** present things.

Have we found a stable resting place? First, I will remain neutral between Presentism ζ and η , since I do not want to make any assumption about which conception of possible world the presentist should adopt. And second, although I find it natural and attractive to regard presentism as having modal force, I have no particular knock-down argument that we ought to treat it that way. Moreover, since some presentists seem not to especially favor the modal reading, and since the issue has, I believe, no particular bearing on what follows, I want to remain officially agnostic on whether presentism is a contingent or necessary claim.⁴¹

Before concluding, we consider a final problematic case. Consider an eternalist world—i.e. one where the past and future are as real as the existing present—of a special sort, a world where the same things exist at every time. Such a world is ontologically constant: no object is ever created or destroyed. Consider a person in this world, MacLeod, who asserts that all the temporal things are present things. Assume that, in MacLeod's assertion, 'present things' picks out all and only the things that exist at the

⁴⁰ Of course, this assumes that the presentist can innocently adopt a four-dimensional view of possible worlds for the purpose of employing a modal logic that permits the right inferences. Yet the presentist should maintain that possible world are mere theoretical devices in modal logic—we should not read into the logic of worlds the claim that, somehow, reality is really four-dimensionally extended.

⁴¹ See, e.g., Merricks (2007: 120, fn. 1)

time of assertion.⁴² Has MacLeod asserted truly? It seems that he has. After all, the present things—the things that exist concurrently with his assertion—are the only things that exist throughout the entire history of MacLeod’s world. His static, eternalist world is thus seemingly devoid of non-present things. And his world therefore seems consistent with the formulations of presentism thus far—the formulations all label the MacLeod world as one where presentism holds. But this seems to show that there is something wrong with the formulations of presentism thus far, for presentism ought to be inconsistent with eternalism.

But appearances deceive in the MacLeod case. MacLeod’s world is misleadingly described as one where the same things exist at all times. But remember that, in formulating presentism, we use ‘things’ in a maximally-inclusive way; it covers material objects as well as events and times. And although it is entirely plausible that a world could exist where no material object is ever created or destroyed—all material objects exist in sempiternal perpetuity in such a world—this would not automatically be a world where everything *full-stop* is a present thing. For not all *times* in such an eternalist world should count as present things.⁴³ Thus, consider a past time, t_1 (a time prior to

⁴² Eternalists typically defend such a view of ‘now’ or ‘present’. See, for example, Mellor (1998: 29-38).

⁴³ Presumably, MacLeod’s eternalist world also contains some non-present *events* in addition to containing non-present *times*. However, we might attempt to modify the description of the MacLeod world as being a world where, in addition to all material objects existing in sempiternal perpetuity, all events exist in sempiternal perpetuity. In such a world, no event is ever created or destroyed. Would such a world—lacking any creation or destruction of either events or material objects—simply be a world entirely devoid of change? And is such a world genuinely metaphysically possible? To circumvent these difficult questions, I choose to focus on the issue of non-present times in MacLeod’s world, rather than that of non-present events. For it should be clear that, whatever the status of non-present events in eternalist worlds, these worlds surely contain non-present times.

MacLeod's assertion) as well as the present time, t_2 (the time concurrent with MacLeod's assertion). In MacLeod's world, all the material objects whatsoever are presently-existing things (they exist at t_2), yet t_1 itself, as well as a host of other past and future times, are entirely non-present things. Of course, in MacLeod's eternalist world, the past time t_1 **exists** (it exists simpliciter). But, crucially, it does not exist presently (concurrently with MacLeod's assertion). This point should not be controversial. To reinforce it, notice that t_1 is, relative to MacLeod's world, a wholly past thing in exactly the same sense that, e.g., the year 1863 is a wholly past thing relative to our world.

A caveat about my response to the MacLeod world: I assume that times are genuine *things* over which we can quantify. Is this assumption problematic? Perhaps it is generally problematic, for perhaps the best account of times dispenses with (or reduces) them, in favor of, e.g., the events and objects that populate the manifold. Yet I do not think this assumption problematic in the context of my response to the MacLeod example. To see why, we introduce some terminology. Following standard usage, say that *substantivalism* about time is the view according to which times are real things that exist over and above the objects and events that exist at them. And say that *relationism* about time is the view according to which times are nothing over and above the objects and events that exist at them.⁴⁴ If substantivalism is true, then times are real things over which we can quantify, and the MacLeod example fails to undermine the formulations of presentism thus far. But if relationism is true, then the MacLeod example also fails to

⁴⁴ This usage is analogous to how "substantivalism" and "relationism" are used to describe theories of space or theories of space-time. See, for instance, Huggett and Hoefer (2009) and Nerlich (2003).

undermine any of the formulations. Why? Because the MacLeod world is the sort of world that relationists notoriously declare to be impossible. For the MacLeod world to be dialectically effective against the foregoing formulations of presentism, it must be an eternalist world where no object or event is ever created or destroyed. But, on relationism, times are individuated solely in terms of the objects and events existing at them. Thus, Benovsky (2010) explains, “a particular instant of time is thus, according to relationism, a collection of simultaneous events and things (a simultaneity class of events and things), and a time-series is all the collections of simultaneous events in the order in which they occur.” Yet, in the MacLeod world, every time is the same simultaneity class, for every time has precisely the same members. Insofar as classes are individuated by their members, it follows that there **exists** only a single instant of time in the MacLeod world, contradicting the original assumption that it is a four-dimensionally extended eternalist world. In short, the relationist is *prima facie* unable to account for the possibility of the MacLeod world. The upshot is that if substantivalism and relationism are logically-exhaustive, then the MacLeod example is no threat to any of the formulations of presentism thus far.

I tentatively conclude that presentism is naturally understood as one of three claims: (i) Presentism δ , the claim that it is always true that all of the temporal things are present things; (ii) Presentism ζ , the claim that, necessarily, Presentism δ is true; or (iii) Presentism η , the claim that, necessarily, all of the temporal things are present things. These latter two formulations capture the idea—one that presentists should find

perspicuous and attractive—that to exist, in the temporal sense, is just to be a present thing. Finally, I note that from here forward it will often be helpful, for brevity’s sake, to treat presentism as the simple-minded claim *that only present things exist*. But, fortunately, in light of the foregoing, we may at any time fall back on one of the more rigorous formulations when appropriate.

1.4 Actualism and Possibilism

There are many truths about how things might have been. Your physical characteristics or life history might have been different. You might have been an inch taller than you actually are. You might have been born in Chicago—or if you were born in Chicago, you might have been born elsewhere. You might have never been born at all. Various features of our planet or our universe might have been different. The Axis might have prevailed in World War II, and German (or Japanese or Italian) might have been the dominant global language in the 21st century. There might have been six-legged horses. There might have been no black holes. These are all metaphysically possible ways that our world might have turned out, if our world had turned out differently. Similarly, there are many truths about how things must have been. Triangles must have three sides. Seven must be a prime number. *That all bachelors are unmarried* must be true. These

are all metaphysically necessary features of our world—our world could not have turned out differently in these respects.⁴⁵

One of the great challenges of metaphysics is to provide a theory of modality—i.e. a theory of necessity and possibility—that accounts for all of the modal truths. Such a theory should tell us what, if anything, *explains* or *underlies* the possibility and necessity of the many possible and necessary truths. The pursuit of a metaphysics of modality has been greatly influenced by a parallel development in contemporary logic, the development of modal logics. One system in particular—first-order quantified modal logic (“QML” for short)—has been especially influential. QML depicts necessity and possibility via a system of possible worlds. According to QML, the proposition *that possibly, P* is true just in case there is a possible world where *that P* is true. *That necessarily, P* is true just in case every possible world is one where *that P* is true.⁴⁶ Talk of possible worlds—aided, abetted, and made precise by QML—has proven to be of great utility in logic, metaphysics, and throughout many areas of philosophy.

⁴⁵ We can distinguish between various types of possibility and necessity, e.g. *physical, metaphysical, logical, conceptual*. For example, it is metaphysically though not physically possible for a mass-bearing object to accelerate beyond the speed of light. (Or, at any rate, this is physically impossible if Einstein’s special theory of relativity is to be believed.) According to Kripke (1980), it is metaphysically necessary that water is identical to H₂O. Yet it seems conceptually and logically possible that water might have been composed of different elements. It is generally controversial which types of possibilities and necessities are *genuine possibilities and necessities*—i.e. even supposing it is *logically* possible that water might not have been H₂O, is this really a *genuine* possibility? For present purposes, we needn’t take a stand on which types of possibilities and necessities are the genuine ones—all that matters is that there are some genuine ones. Thus, in what follows, I will understand the debate over the foundations of possibility and necessity to concern the genuine possibilities and necessities, whichever they turn out to be.

⁴⁶ Kripke (1963) is a foundational paper. For a thorough treatment of first-order quantified modal logic, see Fitting and Mendelsohn (1998). On modal logics generally, see Priest (2001).

Though many adopt possible worlds talk on account of its great philosophical utility, the question remains: How seriously are we to take such talk? Is possible worlds talk merely a useful tool not to be taken literally? Or should we rather take seriously the idea that there *really are* such things as merely possible worlds and at those worlds bona fide merely possible objects (e.g. six-legged horses, emerald chairs, fire-breathing dragons)? Some say that we should take this idea seriously. According to *possibilism*, there are merely possible things that are just as real as actually-existing things. Lewis (1986) defends a famous version of possibilism called *modal realism*, the view according to which there are possible worlds identical in kind to the actual world: each possible world is an existing, concrete, spatiotemporally-isolated universe.⁴⁷ According to modal realism, *that there might have been a six-legged horse* is made true by the existence of a six-legged horse at a concrete but spatiotemporally-remote possible world. *That I could have been an inch taller* is similarly made true by the existence of an inch-taller counterpart of me at some non-actual world.⁴⁸ One of the chief objections to Lewis's possibilism is that it is, quite simply, an incredibly strange view. It is quite simply incredible to think that there are isolated universes where (literal, concrete, existing!)

⁴⁷ See Lewis (1986: 1-5 and 69). More precisely, according to modal realism, each world, *w*, is a maximally spatiotemporally-unified object: each one of *w*'s parts bears a spatiotemporal relation to each one of its parts, and none of *w*'s parts bear a spatiotemporal relation to anything not a part of *w*.

⁴⁸ According Lewis's counterpart view, *that I could have been ambidextrous* is made true by there being an ambidextrous person at some possible world who bears the counterpart relation to me. Crucially, this counterpart is not literally—is not identical to—me. According to the trans-world identity view that Lewis rejects, *that I could have been ambidextrous* is made true by there being some ambidextrous person at some possible world who is literally—is identical to—me. The issue of counterpart theory versus trans-world identity, though fundamental to modal metaphysics, is separable from the actualism versus possibilism debate per se. Therefore, I will not presuppose any particular position on counterparts or trans-world identity.

donkeys talk and dragons breathe fire.⁴⁹ Yet Lewis claims that belief in such possible worlds allows for a theoretically-powerful account of modality (among other things) and that the theoretical benefits of modal realism are worth the costs.⁵⁰ I treat Lewis's modal realism as the canonical version of possibilism.

In contrast to possibilism, *actualism* says that everything is actual. According to actualists, there are neither merely possible worlds nor merely possible objects, for nothing exists beyond the actual. Actualism is often compared to presentism. And this comparison seems a good one, for actualism is just the modal analog of presentism. Just as presentists say that no temporal things exist beyond the present time, actualists say that no things exist beyond the actual world. These views together say that there is something ontologically very special about the actual world and the present time that we occupy.

Actualists do not automatically eschew possible worlds talk. Yet they believe that any such talk, if true, is made true by what exists actually. One version of actualism, *ersatzism*, says that among the actually-existing things are maximal, consistent sets of propositions (or sentences) and that these sets—or “world stories”—each describe a possible world.⁵¹ All of these sets are actual (i.e. all of them exist actually) yet only one of them is actualized (i.e. only one of them represents the actual world). On ersatzism,

⁴⁹ This objection is often known as “the incredulous stare”—see Lewis (1986: 133-135).

⁵⁰ Allegedly, it allows for a theoretically-powerful account of modality, closeness, content, and properties. See Lewis (1986: 5-69) and Divers (2002: 43-58).

⁵¹ Two important actualist views along these lines include Adams (1974) and Plantinga (1974).

that I could have been an inch taller is true just in case this proposition is a member of at least one of the sets (i.e. just in case it is true according to at least one of the world stories). Another version of actualism is Armstrong's (1989) *combinatorialism* according to which possibilities are thought of as mere combinations (rearrangements) of actually-existing things, viz. universals and particulars. On combinatorialism, to say that *that I could have been an inch taller* is true is just to say that things could have been (re) arranged in such a way that I am an inch taller.

For our purposes, the metaphysical details of the various actualist theories do not matter so much as the ontological bedrock that these views have in common, viz. commitment to the idea that nothing exists beyond the actual:

(Actualism α) Only actual things **exist**.

Should we take this as the proper formulation of actualism? Unlike the case of presentism and its rivals, here no qualification is needed to cover the case of atemporal objects. For according to the actualist, temporal and atemporal things alike—chairs and tables and properties and numbers—count as actual so long as they exist. Thus, objects existing outside of time, if there are any, are no counterexamples to Actualism α .

Could there ever be a time when Actualism α is false? Might Actualism α be true now yet false a year from now? It is hard to see what motivation there could be for believing that Actualism α changes its truth value over time. The possibilist believes that *that there might have been a six-legged horse* is true in virtue of some existing but merely possible six-legged horse; the actualist believes that this proposition is true—if in virtue

of anything—in virtue of what exists actually. But it is *prima facie* hard to see why exactly someone might think that any merely possible object—e.g. a merely possible six-legged horse—flashes in and out of existence from time to time. Call an ontologist who believes that merely possible things flash in and out of existence a *flashing possibilist*. (We might think of the flashing possibilist as the modal analog of one of our previous eccentric friends, the flashing future ontologist.) As in the case of formulating presentism, we wish to here know not whether flashing possibilism may have genuine metaphysical motivation but rather merely whether it is a minimally-coherent position, and, if it is, whether it is consistent with actualism properly understood.

Flashing possibilism is no real threat to our formulation of actualism. This is apparent so long as we fix our conception of merely possible objects via Lewis's modal realism. Consider a merely-possible six-legged horse, *Sixer*. According to Lewis, to be *Sixer* is to exist in a space-time disjoint from our own. Therefore, to say that *Sixer* flashes in and out of existence can only mean that *Sixer* **exists** at some non-adjacent times within the space-time that *Sixer* occupies.⁵² But this is just to concede that, from the perspective of our actual world, *Sixer* does not exist presently, nor did *Sixer* exist at any of our past times, nor will *Sixer* exist at any of our future times. Yet, by modal realist lights, *Sixer* **exists**. In short, if *Sixer* ever **exists** in any Lewisian world, then actualism is, was, and will be false. If *Sixer* does not **exist**, he is never a threat to actualism. We

⁵² Of course, *Sixer* has counterparts at other non-actual worlds, but ignore these counterparts. For the sake of this example, pretend that *Sixer* exists at a single world. Of course, if Lewis is right that trans-world identity fails and that each object is unique to its own world, then we needn't pretend—*Sixer* really does exist at only a single world.

revisit the issue of existing in other worlds in chapter two; this issue turns out to be fundamental to understanding the notion of existence at play in ontological debates. But for now, it will suffice to say that given a Lewisian conception of mere possibilia, flashing possibilism is no threat to the idea that Actualism α properly formulates actualism.

Should actualists assert something modally stronger than the claim that only actual things exist? Should they assert that, *necessarily*, only actual things exist? This question is initially somewhat difficult to evaluate, for it is not immediately clear what it means to say that actualism is itself a necessary truth. Here is one thing that it could mean. Consider the set of all things that actually exist, S_α . To say that actualism is a necessary truth could mean simply that at every possible world the existing things are precisely the members of S_α (or some subset of S_α). Thus, each possible world has a domain that is bounded by what is actual, i.e. by the members of S_α . On this conception, to say that actualism is a necessary truth is to say simply that nothing other than the members of S_α could have existed. But actualists surely do not wish to assert that actualism is a necessary truth in *this* sense. For surely there could have existed things other than those things that actually exist. There surely could have been six-legged horses or cities filled with people who speak twelve languages, though none of these things actually exist. Therefore, actualists should not say that their view is a necessary truth in this sense.

But there is another sense in which we might claim that actualism is a necessary truth. This other sense falls out of the distinction between what Bennett (2005) calls “*w-ism*” and “@-ism”:

w-ism: the thesis of actualism, whatever it is, is true whichever world *w* is actual.
@-ism: the thesis of actualism, whatever it is, is true given that this world @ is the actual world.
(Bennett 2005: 311).

@-ism is the view that actualism is deeply contingent. According to @-ists, everything is actual, yet if some other world were to be actual, then all bets are off concerning whether everything is actual. *W-ism*, on the other hand treats actualism as *fixedly* true. According to *w-ists*, even if some other world were to be actual, it would remain true that everything is actual. According to Bennett, actualists should ultimately choose *w-ism*. But she also claims that there are interesting advantages to @-ism, e.g. that @-ists can account for the possibility of alien individuals—individuals that do not actually exist but that might have existed—not just relative to the actual world, but relative to every world.⁵³ Actualists should ultimately choose between @-ism and *w-ism*. But for present purposes, we need not choose. For our purpose of evaluating temporal ontology and comparing it to modal ontology, it will suffice to treat actualism as Actualism α , the view that only actual things **exist**. We leave it open whether actualists should represent their view as fixedly or contingently true.

⁵³ See Bennett (2005: 311-315).

1.5 Objections to Presentism

To lay the groundwork for the upcoming chapters, I want to close this chapter by somewhat briefly discussing some common objections to presentism and some of the potential replies to these objections. The goal here is neither to deeply probe nor to decisively answer each objection. Rather, the goal is chiefly expository: by summarizing some of the common objections and replies, I hope to illuminate the debate over presentism and thus to put the reader in a better position to appreciate the chapters to follow. I also note that—except for the replies that I discuss at length and endorse in forthcoming chapters—I do not necessarily endorse the replies given below.

Although I will be concerned in the coming chapters with the connections between presentism and actualism, there are two reasons why I will not also discuss the common objections to actualism. First and foremost, given that I aim to offer a (partial) defense of presentism but not a defense of actualism, it makes sense to focus on the anti-presentist arguments. And second, one finds in the contemporary metaphysics literature a robust battery of arguments against presentism but not a similarly-robust battery against actualism. The reasons for this asymmetry in the literature are complicated—many are philosophical and some, perhaps, are merely sociological. At the risk of over-simplifying the debates, it must suffice for present purposes to observe that whereas a legion of philosophically-diverse arguments have emerged claiming that presentism has counterintuitive implications, the recent arguments against actualism have tended to focus not on its counterintuitive implications—indeed, I believe that most regard actualism as

the intuitively-appealing view of modality—but more narrowly on the charge that actualism simply cannot do the theoretical work demanded by modality.⁵⁴

I now turn to the anti-presentist arguments. I offer these arguments organized into related groups. The final group of objections—objections concerning the metaphysics of past-oriented truths—will be briefly summarized here and addressed at greater length in chapters three and four.

1.5.1 Objections from Naïve Conceptions of Time

The Objection from Naïve Quantificational Semantics: It is true *that dinosaurs existed*. So, therefore, *that there is something that was a dinosaur* is true too—this is a simple existential inference. Put differently, if dinosaurs existed, then a dinosaur is surely within the unrestricted domain of quantification. For what is an unrestricted quantifier if not one that ranges over everything, past, present, and future? On a basic semantic level, it is therefore hard to see how presentism has merit.

Reply: The existential inference in question is far from innocent. In general, it is a vexed question which sorts of existential inferences are permissible. Contrast:

- (2) Dinosaurs roamed the earth.
- (3) A dragon might have existed.
- (4) Chelsea believes that Santa Claus is generous.

May we infer from these, respectively, *that there is something that roamed the earth*, *that there is something that might have been a dragon*, and *that there is something that*

⁵⁴ See Divers (2002), Fine (2003), Lewis (1986: 136-191), and Sider (2003).

Chelsea believes to be generous? Perhaps or perhaps not—it depends on how ontologically liberal we are. But there is nothing automatically innocent about such inferences.⁵⁵ Just as those who deny the existence of merely possible objects and fictional objects forbid the latter two inferences, presentists forbid the former. And because presentists regiment the claim *that Caesar existed* as the ontologically-opaque claim WAS(*that Caesar exists*), we are not, by their lights, permitted to “quantify in”, i.e. to infer that there exists something that was Caesar.

Finally, presentists deny that an unrestricted quantifier ranges over non-present, temporal things, for presentists deny that there **are** any non-present, temporal things. This is why presentists hold that what is within the unrestricted domain of quantification changes over time—Caesar was once within this domain, but no longer; exciting nano-swarms will (perhaps) one day be within this domain, but not presently. The dispute between presentism and its rivals is precisely a dispute about which things are within the unrestricted domain of quantification—it is a debate about *what exists*. Consequently, it is debatable whether the unrestricted existential quantifier picks out, in addition to what exists presently, what did and will exist. This last point will be revisited at greater length in chapter two.

The Objection from the Analogy between Space and Time: Time is analogous to space. Just as spatial locations and things spatially distant from us are no less real than what is here, distant times and things that exist at distant times are no less real than what is now.

⁵⁵ Examples from Szabó (2007).

But presentism breaks this attractive analogy. For this reason, presentism seems to be an objectionable form of *ontological solipsism*.

Reply: Time is unlike space in multiple, crucial ways. Inter alia, time has a direction in a way that space does not. And time flows—or has the appearance of flow—in a way that space does not. And we can freely move through space in a way that we cannot freely move through time. Similarly, presentists say that time is ontologically disanalogous to space. The label ‘solipsism’, used as a pejorative, is inapt. Just as modal actualists should not be pejoratively labeled ‘solipsists’ merely in virtue of believing that everything is actual, neither should presentists be pejoratively labeled the same just in virtue of believing that everything is present. Since the analogy between space and time is remarkably imperfect to begin with, there is little cost if any to denying that distant times are akin to distant spatial locations.

1.5.2 Objections from Cross-time Truths

The Objection from Cross-time Relations: Presentism offers a three-dimensional, “momentary” picture of reality. But there are many relations that “cut across times” in contravention of this picture. For instance, *that Lisa Marie is Elvis’s child* is true. Ergo, Lisa Marie stands in the child-of relation to Elvis. But whereas Lisa Marie is a present individual, Elvis is merely past. Presentists are therefore in no position to hold that Lisa Marie really does stand in such a relation, for the other relatum is missing. And so

presentists are in no position to respect the obvious truth of the proposition *that Lisa Marie is Elvis's child*.⁵⁶

Reply: Several subtly-different ways of replying are available, but I believe we can cluster the replies into three main camps. First camp: Deny that the truth of cross-temporal claims generally requires the existence of genuine cross-temporal relations. Presentists in this camp say that although Lisa Marie fails to stand in any relation to her non-present father, this does not prevent *that Lisa Marie is Elvis's child* from being true. What argument might we give? One possibility is to say that, even on presentism, it is surely true *that Elvis fathered Lisa Marie*. But *that Elvis fathered Lisa Marie*—perhaps together with the claim *that Lisa Marie is still alive*—seems to entail *that Lisa Marie is Elvis's child*. Thus, we have:

- (5) Lisa Marie is Elvis's child.
- (6) Lisa Marie stands in the child-of relation to Elvis.
- (7) Elvis fathered Lisa Marie.
- (8) Lisa Marie is still alive.

⁵⁶ On stating and responding to this objection, see Crisp (2005), Davidson (2003), De Clercq (2006), and Szabó (2007).

According to this reply, (5) is true—even in the face of (6)’s falsity—so long as there is some presentist-friendly claim, such as the conjunction of (7) and (8), that entails (5).⁵⁷

Second camp: Concede that because there are no genuine cross-temporal relations, therefore many intuitively-true cross-temporal claims—e.g. (5)—are indeed literally false. But presentists could then say that because the cross-temporal claims have presentist-friendly paraphrases that *are* literally true, the original claims are “quasi-true” or “close enough to true”.⁵⁸ In this case, (5), though literally false, is quasi-true in virtue of having a true paraphrase, (7). So long as the intuitively-true claims are at least quasi-true, folk intuitions about cross-time propositions are well-enough respected.

Third camp: Say that a relation can hold even when one (or both) of its relata fail to exist—e.g. Lisa Marie bears the child-of relation to her nonexistent father. If so, then there is no obstacle to the truth of the relevant cross-temporal claims. This camp rejects what Bergmann (1999) calls *serious presentism*, the view that no object instantiates a property or stands in a relation at a time when that object does not exist. Surely, many will find this third camp to be strange, for it ventures into meinongian (or perhaps quasi-meinongian) territory in saying that ordinary relations can somehow link the existent with the nonexistent.

⁵⁷ A potential problem: if *that Lisa Marie is Elvis’s child* is true, then why are we not permitted to existentially generalize and infer *that someone is such that Lisa Marie is their child*? Presentists who aim for literal truth presumably need some way to argue that certain relational-expressions—e.g. ‘child-of’—introduce an opaque context. But it is unclear how to argue for this opaque context in a principled, non-ad hoc way. Contrast, for instance, the two cross-temporal claims *that Lisa Marie is Elvis’s child* and *that Lisa Marie is shorter than Elvis was*. Since the latter contains a past-tensed construction, the presentist has a principled reason to remain ontologically uncommitted; yet in the former case, no such tensed construction shows its face.

⁵⁸ Sider (1999) offers presentists a strategy along these lines.

The Objection from Causation: This objection is really just a special case of the objection from cross-time relations, but due to the importance of the causal relation, it deserves special attention. Causal relations exist, and they link events. Moreover, causes are earlier than their effects. But, on presentism, no existing event is earlier than any other existing event, for otherwise it would follow that either one or the other event is non-present. So, assuming, quite plausibly, that a causal relation exists only if both relate exist, presentism is in trouble. In short, it is mysterious how presentists can account for the existence of causal relations.

Reply: What we need is a presentist-friendly view of causation. Reductionist views—i.e. Humean views whereby there are no irreducible causal relations and casual truths are reducible to non-causal truths—are presentist-friendly so long as the truths constituting the reduction base are presentist-friendly. The Humean regularity view of causation holds that for an event *C* to cause an event *E* is just for *E* to regularly follow *C*: whenever an event of of the *C*-variety occurs, an event of *E*-variety follows.⁵⁹ Presentists should be able to accept a regularity theory, for they can accept that whenever an event of the *C*-variety is present, it will be true that an event of the *E*-variety immediately follows. A popular neo-Humean view is the counterfactual account given by Lewis (2004b, 1973). The basic idea behind the counterfactual account is that causal truths are to be understood via claims of the form *if C hadn't have happened, then E wouldn't have happened*. So long as presentists can adopt a legitimate account of counterfactuals, there is no reason

⁵⁹ But it is debatable whether Hume himself accepted the Humean regularity theory—see Broackes (1993).

why they cannot endorse a Lewis-style reduction of the causal relation. If one eschews a reductive approach to causation in favor of accepting a non-reductive causal relation, there are other presentist-friendly options. For instance, Bigelow (1996) suggests that the causal relation links propositions rather than events. And Huemer and Kovitz (2003) treat causal chains as involving temporally-overlapping events. In the latter case, the casual relation may be understood most fundamentally as linking simultaneous events, and the original objection is undercut.

The Objection from Memory: This objection is, once again, a special case of the objection from cross-time relations, but due to the importance of memory it too deserves special mention. It is part of the canon of common sense that we remember all sorts of things. We remember what high school we attended, who played at our first concert, the color of our pet goldfish, and so on. But an intuitive account of memory is that memory is just a certain kind of *awareness of the past*. In particular, memory is awareness of past objects (or events) that arose by one's having had certain experiences of those objects (or events) and hence by being causally connected, in the appropriate way, to the past thing (s) of which one is aware. But according to presentism, there are no past things of which one can be aware (or to which one can be casually related).

Reply: Why insist that memory is a bona fide relation, viz. awareness of that which one remembers? There are several ways that we might understand memory. The objection seems to press an analogy between memory and perceptual awareness: remembering, goes the objection, requires being aware of existing past things just as perceiving requires

being aware of existing present things. But it isn't clear that memory is best understood in this way. Or, at the very least, it is far from obvious that memory *must* be understood in this way. For instance, rather than viewing memory as a special kind of awareness, we might view it as a special kind of belief, or, perhaps, as a special kind of collection of mental images. On the belief model, my memories are beliefs about the past that arose in a certain way—e.g. I remember the color of my goldfish by having seen my fish and, at that time, having formed a corresponding belief about my fish's color. But my retention of such a belief—and hence, my memory of my goldfish's color—does not require the existence of the past in any obvious way. Similarly, if memories are special collections of mental images, my retention of the relevant collection of images does not require the existence of the past things that originally led to the creation of those images. For the objection from memory to have force against presentism, we require an argument that memory is most plausibly understood as a species of genuine relation to past things. Unless such an argument is forthcoming, presentists should simply avail themselves of an alternative account of memory.

The Objection from Cross-time Counting: Some truths “cut across times”, not in the sense of requiring cross-temporal relations, but rather in counting things across different times. Taking an example from Lewis (2004a), suppose it true *that there have been two kings named 'Charles'* but that these kings never overlapped. The presentist's usual past-tense operator, WAS, is a “slice operator”—it tells us what was the case at some single past moment. WAS(*that there are two kings named Charles*) is an inadequate

translation of the original claim because it falsely says that there was a single past time at which there existed two kings named ‘Charles’. It is therefore unclear how presentists can respect—given their theoretical resources—the truth of a myriad of counting claims.

Reply: There are three general strategies of reply. First strategy: Claim that presentists can effect, in principle at least, brute force translations of all cross-time counting claims in terms of the simple (slice) tense operators. For instance, *that there have been two kings named ‘Charles’* could be translated as the following nested claim:

- (9) WAS(there is a king named ‘Charles’, and WAS(there was another king named ‘Charles’)).

But it is unclear whether the brute-force strategy always works so well. For we should also consider, as Lewis observes, cases where there were infinitely many Fs, as well as cases where there were some (unspecified number of) Fs. Both cases seem to require infinitary constructions of tense operators, thereby suggesting that brute force translation is a tricky matter. At the very least, there appears to be no good general formula for generating presentist-friendly translations from the counting claims—brute force is hard work!

Second strategy: Claim that presentists can adopt a different sort of ontologically-opaque operator—a span operator—that functions as making a claim about a span of time rather than a single moment. Consider the span operator HAS: HAS(*that there are two kings named ‘Charles’*) represents what we’re after, viz. that two kings named ‘Charles’ existed over some span of time. Are presentists entitled to such operators? An eternalist can quantify over spans of time to her heart’s content, but the presentist says that there

are no such things as spans of time. So how is it that presentists are allowed to embrace a device that captures an idea they reject? Yet this reaction is perhaps hasty. Presentists also reject the existence of past moments of time, and actualists reject the existence of merely possible objects and worlds, yet both are *prima facie* justified in using ontologically non-committing tense and modal operators. So long as the operators are well-understood in the theory, there seems to be nothing *prima facie* illegitimate about adopting them as ontologically-innocent ways of speaking. As Brogaard (2004: 74) explains, “the totality of truths involving span operators should do no more than [give a series of snapshots of the world at successive moments of time]”.

Another objection to span operators is Lewis’s (2004a: 12-13) observation that they are unruly beasts: They create ambiguities when pre-fixed to unambiguous claims—e.g. HAS(*that it is raining and sunny out*) could indicate either a time when it is both raining and sunny or else non-overlapping times when it is first raining and then sunny (or vice versa). And they create truths when pre-fixed to contradictions—e.g. HAS(*that it is raining and not raining*) could be true, though the embedded proposition could not. Such operators therefore seem rather unruly for something of which presentists must say we have a primitive understanding. Brogaard replies that their apparent unruliness may be unproblematic so long as presentists help themselves to both span and slice operators, for even primitive operators can be constrained in various ways. For instance, the truth of HAS(*that it is raining and not raining*) can be constrained by requiring the falsity of WAS(*that it is raining and not raining*). In other words, for it to have been raining and

not raining over some span, it must also be false that it was both raining and not raining at any past moment. Slice operators can similarly be used to eliminate ambiguities introduced by span operators.

Third and final strategy: Presentists might adopt proxies for non-present individuals. Those presentists who adopt ersatz (abstract) times—e.g. Crisp (2007) and Bourne (2006)—may freely count across their abstract times; or rather, they may freely count the number of kings named ‘Charles’ that are represented, by the ersatz times, as having existed. And those presentists who adopt platonic *haecceities*—individual essences that may exist uninstantiated—may freely count the haecceities of kings that were named ‘Charles’.⁶⁰

The Objection from Persistence: Things persist through time. To say that a given rock persists from one time to another is to say simply that the *same rock* exists at different times. And crucially, people persist. To say that *I persist*—e.g. that I survived childhood to become a grown adult—is to say that I exist at different times, one time at which I am a child and another at which I am a grown adult.⁶¹ But the most straightforward way of understanding persistence—viz. one and the same thing’s existing at different times—is closed to presentists. For presentists believe that there is only one time: the present one.

⁶⁰ Keller (2004) discusses the prospects for proxies. One potential problem with the haecceities strategy is that it only works if precisely the right haecceities are counted and no more. For example, when counting the uninstantiated haecceities of kings that existed and were named ‘Charles’, we must be sure to avoid counting the uninstantiated haecceities of any merely possible kings named ‘Charles’ lest we miscount. I discuss this point further in chapter 4.

⁶¹ See Olson (2010).

Since there are no other times for things to occupy, the same thing cannot exist at different times, and it is mysterious how things persist.

Reply: Presentists fully accept that things persist through time, but we must take care in stating what it takes to persist. On presentism, to say that I survived childhood to become an adult is to say simply that a person (me) *existed* in the past as a child and that the very same person (me) *exists presently* as an adult. But that is fine. Presentists *can* say those things. Putting the point explicitly in terms of identity, we can say that I am (numerically) identical to a child that existed. Again, no problem for presentists, for, so to speak, the very same present thing (me) “flanks both sides of the identity sign”.

Of course, what presentists cannot say here is that I **exist** in the past as a child and that I **exist** in the present as an adult—only someone who believes in the reality of the past can say that. The crucial point here is that, on presentism, *that I existed* does not entail *that I exist in some past temporal region*. But the truth of the former—together with my present existence—is sufficient to metaphysically account for my persistence. And consequently, my being tenselessly located at various temporal regions is not necessary for my persistence.

Presentists may also wish to redirect the energy of this criticism toward the attacker, for presentism has an advantage when it comes to theories of persistence. To see this, we make the familiar distinction between two types of persistence: *endurance* and *perdurance*. A thing *endures* just in case it persists by being wholly present throughout

its career. A thing *perdures* just in case it persists by having temporal parts.⁶² To say, e.g., that a wooden stick endures from 1PM to 3PM is to say that the stick is wholly present throughout the 1PM to 3PM interval; to say that it perdures from 1PM to 3PM is to say that it has temporal parts throughout the 1PM to 3PM interval. Now we introduce a familiar puzzle about change, the so-called *problem of temporary intrinsics*. Assume that our wooden stick is straight until 2PM—at which time it becomes bent by an angry hulk—and stays bent for the rest of its career. The puzzle: Our wooden stick **is** (tenselessly) both bent and straight, but nothing can be both bent and straight—a contradiction!⁶³ Perdurantists have an easy answer: Some temporal parts of the stick are straight, others are bent, and that is no more contradiction than a road's having some bent (spatial) parts and some other straight parts. But endurantists, eschewing temporal parts, lack this easy answer. And now, presentism to the rescue. There is never, on presentism, any single thing that **is** (tenselessly) both bent and straight: prior to 2PM, no stick **is** (tenselessly) bent, and after 2PM, no stick **is** (tenselessly) straight.⁶⁴ Of course, presentists and eternalists alike must concede that, as of 2PM, there is a stick that was straight and will be bent. But this is no problem—there is no contradiction in a thing that *was F* and *will be not F*. In short, not only can presentists account for the persistence of

⁶² On perdurance vs. endurance, see Haslanger (2003), Hawley (2010), Lewis (1986: 202-205), Mellor (1998: 84-96), and Sider (2001: 53-73).

⁶³ See Lewis (1986: 202-205).

⁶⁴ Charitably assume, of course, that we restrict our quantifiers to a region where the example stick is the only stick around. To make the needed point, we also assume serious presentism, the view that no object instantiates a property at a time when it does not exist—see Bergmann (1999). This assumption should give little cause for alarm, however, for non-serious presentism is a strange view; it is a view on which, e.g., Caesar, despite his nonexistence, may now possess the property of being a famous Roman.

objects, they have an advantage over other ontological views when it comes to endorsing endurantism. This is noteworthy for those who take endurantism to be the superior account of persistence.⁶⁵

1.5.3 Objections to Presentist Tense Operators

The Objection from Anti-Ontological Cheats: Eternalists can offer the following style of analysis for WAS: WAS(*that Caesar exists*) is true iff there exists some past time, *t*, and Caesar exists at *t*. But such an analysis quantifies over (concrete) merely past things and is thereby closed to presentists. So presentists resort to the idea that the tense operators are primitive and hence to the idea that past-tense truths are primitive truths. But this is cheating! To maintain that some tensed propositions are primitively true (and so lack an ontological explanation) is akin to wanting to have your ontological cake and eat it too.⁶⁶ In short, the presentist helps herself to past-tense truths, yet she refuses to pay the ontological price for these truths.

Reply: Although one does indeed see presentists accused of being ontological cheaters for adopting primitive tense operators, this objection is, I believe, essentially the same as the objection from grounding that I address below.

⁶⁵ There is a hefty literature on the endurantism-perdurantism debate. On why one might prefer endurantism, see, for starters, Mellor (1998: 85-87), Sider (2001: 209-236), Van Inwagen (1990), and Thomson (1983). In addition, Merricks (1999) argues that, given a proper understanding of the endurance-perdurance debate, endurantism simply entails presentism.

⁶⁶ Sider (2001: 35-36) advances this objection.

The Objection from Metrical Claims: It is generally controversial whether presentists can do justice to all of the true natural language claims. The objection from cross-time counting is one prickly instance of this controversy. Another is that the presentist's tense operators seem unable to account for metrical claims such as the claim *that dinosaurs existed 100 million years ago*. After all, $WAS(\textit{that dinosaurs exist})$ says merely that dinosaurs existed at some past moment—it does not specify *which* past moment. Now, perhaps presentists will try to help themselves to metrical tense operators, e.g. the metrical operator $WAS_n(\varphi)$ represents that φ was the case n units of time ago. But it isn't clear that presentists should be permitted these metrical operators, for such operators all too suspiciously resemble quantifiers over past times. If the metrical tense operator *isn't* simply a (disguised) quantifier over a given unit of past time, then it's hard to see what it *is*.

Reply: If we already agree that the simple past tense operator, WAS , need not be interpreted as a quantifier over an unspecified past moment, then it's not clear why we should think that WAS_n must be interpreted as a quantifier over some specified past moment. Rather than say that WAS_n quantifies over some specific past moment, presentists could say that such metrical tense operators are complex operators conceptually built from two primitive notions, viz. one notion of primitive past-truth and another of primitive temporal units.

Or, perhaps presentists can eschew metrical operators altogether. For perhaps presentists can avail themselves of the fact that, on presentism, various B-times were

once present—e.g. the year 2010 is a B-time that was, as of my writing this, present two years ago. Ergo, *that dinosaurs existed 100 million years ago* may interpreted as roughly the claim WAS(*that dinosaurs exist & that 100 million BC is present*). For this strategy to work, it must be that we are sometimes ignorant of what proposition we express. For example, I might be wandering through the desert, hallucinating and completely oblivious to the date. Suppose that in my crazed, dehydrated state I shout “yesterday, I saw a glorious vision of a gila monster!” Given my shouting this on April 12, I express the proposition corresponding to WAS(*that I saw a glorious vision of a gila monster & that April 11 is present.*) But I know not what proposition I express, for I know not when my shouting occurs. My propositional ignorance is by no means unique to the presentist view, and it should be no cause for alarm. On the orthodox eternalist view, propositions do not change truth values: When I shouted, I thereby expressed the eternally true proposition *that I see (tenselessly) a glorious vision of a gila monster on April 11*, a proposition of which I am equally ignorant.

The Objection from Empiricist Scruples: While most every theory helps itself to certain primitives, there are those who have scruples about *which types* of primitives are allowed. Tooley (2003) endorses an empiricist view of analysis whereby every non-logical primitive picks out a property or relation that is an object of immediate perceptual experience (or of some sort of direct awareness). Since we lack direct awareness of the future, and since our concept of the future is not a logical concept (such as the concept of

negation or disjunction), then by Tooley's criterion our concept of the future is not, contra presentism, a primitive one.

Reply: Presentists must either jettison primitive tense operators or else reject Tooley's empiricist scruples concerning primitive concepts. Some presentists have done the former. For instance, Bourne (2006) and Crisp (2007) defend ersatz presentism, the view that tensed truths are grounded by an ersatz structure (e.g. an ersatz B-series—maximal propositions that describe instantaneous past, present, or future states of the world and that are linked by a primitive temporal accessibility relation). Those who follow this line can offer an analysis of tense operators in terms of abstract, rather than concrete, times, e.g. WILL(*that the Sun rises*) is true iff there exists some future abstract (ersatz) time, *t*, and *t* represents *that the Sun rises*.

1.5.4 Empirical Objections

The Objection from Special Relativity: All A-theories of time recognize a metaphysically-special, objective cleavage between the present and the non-present. Presentists in particular rely on the idea of an objectively-privileged present in order to distinguish the existing present from the nonexistent past and future. But modern physics—in particular, the empirically-successful special theory of relativity (STR)—does not recognize any such cleavage and is in fact *inconsistent* with it.

First, STR is at least superficially opposed to presentism insofar as it treats the universe as a four-dimensional (eternalist) space-time manifold. Second and more importantly, on STR, the laws of physics are the same in all inertial reference frames,

and, as a result, there is no privileged, observer-independent reference frame available for identification as the metaphysically special present. STR is therefore both superficially and deeply opposed to presentism. Indeed, according to STR, the relative time order of two spatially far-separated events, E and E' , can vary from frame to frame—e.g. according to one reference frame, E is present and E' is future, and, according to another reference frame, E' is present and E is future. Given two such reference frames, presentists must seemingly choose one of them as being distinguished and claim that whereas one of either E or E' is an existing event the other is nonexistent. But STR offers no quarter for such a choice.⁶⁷

Reply: A number of responses are available to presentists. I proceed from least to most radical. First, Monton (2011: 143) observes that metaphysical arguments based on empirical physics are often problematic because “our two best theories of physics, quantum theory and relativity theory, are incompatible.” Monton moreover claims that it is currently unclear whether the anti-presentist implications of STR are also implications of quantum theory—some current interpretations of quantum theory are in fact presentist-friendly. Therefore, those who say that modern physics precludes presentism are betting that the eventual, unified theory—the one that reconciles relativity and quantum theory—will have anti-presentist implications similar to those of STR. But it is unclear whether this is a smart bet.

⁶⁷ On describing the conflict between STR and presentism—or between STR and A-theories broadly—see Godfrey-Smith (1979), Hinchliff (2000) and (1996), Monton (2011), Putnam (1967), Savitt (2000), Sider (2001: 42-52), Stein (1968), Tooley (1997: 337-373), Weingard (1972), and Zimmerman (2011). On STR generally, see any undergraduate modern physics text, e.g. Wolfson and Pasachoff (1999).

Second, a number of presentists claim that presentism, though incompatible with STR on its most straightforward reading, isn't *ultimately* incompatible with STR, for presentism isn't ultimately incompatible with the empirical data that support it.⁶⁸ The idea here is, roughly, that although STR precludes our having knowledge of any distinguished reference frame, STR does not preclude there being such a reference frame. Presentists can therefore distinguish an epistemic reading of STR (STR_e: we cannot know which reference frame, if any, is privileged) from a metaphysical one (STR_m: there is no privileged reference frame) and claim that these readings are at least empirically indistinguishable. But if STR_e and STR_m are empirically indistinguishable, then we can have no empirical reason for preferring one over the other and hence no empirical reason—apart from sheer theoretical simplicity—for ruling out the existence of a privileged present.

If the foregoing is correct, then we can construct a presentist-friendly—and generally A-theory friendly—version of STR, STR⁺ which is the same as STR_e but for the addition of an undetectable, privileged reference frame.^{69,70} The claim is then that STR⁺ predicts all of the data that STR predicts just as well; it merely contains a slight addition

⁶⁸ See Crisp (2003), Hinchliff (2000), Markosian (2004), and Zimmerman (2011) for arguments along these lines.

⁶⁹ See, e.g., the discussion of rendering STR compatible with the growing block theory in Tooley (1997: 337-373). Tooley's approach can presumably be imported by presentists.

⁷⁰ The addition of an empirically-undetectable reference frame leads to a kind of "conspiracy of silence" objection to STR⁺. For we might explain the non-detectability of the privileged reference frame in one of two ways: (i) The laws of nature have somehow astonishingly allowed there to be a privileged reference frame yet "conspired" to make it impossible for us to detect such a frame; (ii) There isn't really any such privileged frame! Doesn't the latter—so goes the objection—sound like a better explanation?

in complexity in the form of a privileged present. Or, perhaps given the slight addition of complexity, we should say that STR⁺ predicts the data that STR predicts *nearly* as well as STR itself—after all, the simpler of two theories is to be preferred, *ceteris paribus*. But presentists will quickly point out that simplicity considerations do not succeed in ruling STR superior to STR⁺ all things considered. For presentists have philosophical reasons to prefer STR⁺, and these reasons more than compensate for the slight addition of complexity in the theory.⁷¹ Of course, we should readily concede that the presentist's bold claim that *there is* a privileged reference frame—viz. the one that picks out the objective present—itself reaches beyond the empirical data that support STR and STR⁺. But no matter. Unless one accepts logical positivism, one is allowed take a philosophical position supported by a priori reasoning rather than a posteriori observation.

Third, presentists might opt for a radical response: claiming that the straightforward reading of STR is correct and that we should simply accept whatever implications thereby follow. What implications are those? STR apparently tells us that there is no objective, observer-independent present. And presentism tells us that only present things exist. Taking both on board, we seem to find that there is no objective, observer-independent account of what exists—*what exists is a radically relative matter*.⁷²

⁷¹ Which reasons? Well, whichever philosophical reasons we have to prefer presentism to its rivals. If there are no such reasons, then the argument from special relativity begins to look quite a bit more damning for presentism. But, of course, if there are no philosophical reasons to prefer presentism to its rivals, then presentism isn't in very good shape to begin with.

⁷² It doesn't quite follow, even given the radical response, that there is *no* objective account of what exists on STR + presentism. For perhaps, just as a claim with a vague predicate that is true on all precisifications is super-true (true simpliciter) on supervaluationism, perhaps an object that exists relative to every frame is objectively real on STR + presentism. On supervaluationism, see Fine (1975). On radically relative existence and presentism, see Fine (2005).

And surely, STR *already* carries a number of shocking, highly counterintuitive implications, e.g. that certain basic physical properties of objects (e.g. length) are possessed not absolutely but only relative to a reference frame. It is merely another step—and not a massive leap—to reach the view that *what exists* is itself not an absolute matter but rather always relative to a reference frame. Philosophers have kindly reserved the phrase “biting the bullet” for replies such as this third one.

1.5.5 Objections from the Metaphysics of Truth

The Objection from Grounding: Presentism seems to conflict with certain intuitive “grounding principles” according to which true propositions depend for their truth on the world. For example, given presentism, *that dinosaurs existed* should be true, yet no existing dinosaurs are available to ground the truth of this proposition. Similar difficulties arise for other historically-manifest truths, e.g. *that Caesar crossed the Rubicon*, *that Newton made breakthroughs in physics*, etc. In offering this objection, the grounding objector typically deploys a theoretically-loaded grounding principle involving either truthmaker entities or the supervenience of truth on being. Insofar as one of these principles is needed to make sense of the connection between truth and being, and insofar as presentism contravenes these principles, we ought to reject presentism.⁷³

Reply: The standard reply is that presentism is compatible with the standard grounding principles so long as presentists pay the metaphysical price of endorsing certain entities—

⁷³ On the grounding objection and replies, see Bigelow (1996), Bourne (2006), Cameron (2011), Crisp (2007), Keller (2004), Kierland and Monton (2007), Merricks (2007: 74-80 and 119-125), Sider (2001: 35-42), and Tooley (1997: 234-240).

tensed facts, ersatz times, or other entities—that serve as truth grounds for past-directed claims. A second, less-traversed reply is that presentists are within their rights to reject the standard grounding principles. I discuss the grounding objection in detail in chapter three and defend the latter reply.

The Objection from Proper Names: It is an a priori truth that names refer to their bearers. ‘Obama’ refers to Obama, ‘Buckethead’ to Buckethead, ‘Socrates’ to Socrates. But, according to presentism, the name of any merely past individual—e.g. ‘Socrates’—has nothing to serve as referent. Therefore, presentism seems to conflict with a basic truth about names.

Reply: Some names are empty—they fail to refer to anything. The French Mathematician Jean Joseph Le Verrier once believed there to be an inner planet orbiting between Mercury and the Sun. He named this hypothetical planet ‘Vulcan’. But Le Verrier was mistaken, and there is no such planet—‘Vulcan’ is an empty name. Presentists believe that ‘Socrates’ is like ‘Vulcan’ but with one difference: whereas ‘Vulcan’ never referred, ‘Socrates’ did once but does no longer. I discuss this objection in chapter four.

The Objection from Singular Predication: Many truths appear to predicate something of a past or future object. For instance, in asserting *that Elvis was a musician*, I appear to predicate something of Elvis himself, viz. having been a musician. But according to presentism, no such merely past individual as Elvis exists. More generally, presentism

carries the implication that, contra appearances, we never predicate things of non-present individuals. This is counter-intuitive. And more worrisome still, if there are no past individuals of whom to predicate, then past-directed singular propositions—e.g. *that Elvis was a musician*—cannot even be true. This is highly counter-intuitive.

Reply: Modal actualists face a similar objection concerning merely possible individuals. For instance, in asserting *that aliens might have built the pyramids* (where ‘might’ is given a metaphysical reading), I seem to predicate something of some merely possible aliens, viz. having built the pyramids. Actualists may reply that rather than predicating some property of some merely possible aliens, I am rather predicating something else—viz. *possibility*—of the claim *that aliens built the pyramids*. Analogously, presentists may reply that rather than predicating some property of a merely past Elvis, I am rather predicating something else—viz. *having been true*—of the claim *that Elvis is a musician*. Consequently, just as the truth of modal possibility claims does not require an ontology of mere possibilia, the truth of past-directed singular claims does not require an ontology of merely past objects. I discuss this objection and reply in detail in chapter four.

The Objection from Singular Propositions: Even if presentists can explain away the intuition that we predicate things of non-present individuals, it remains a mystery how there can be, on presentism, past-directed singular propositions at all.⁷⁴ The standard view of singular propositions is that in asserting, e.g. *that Obama is president*, I express a

⁷⁴ By past-directed singular propositions I mean simply propositions that singularly concern merely past individuals.

proposition that literally has Obama (the concrete man himself) plus the property of *being president* as constituents. Similarly, in asserting *that Elvis was a musician*, I express a proposition that literally has Elvis as one of its constituents. But presentism says that no such constituent exists, ergo, no such proposition exists. To summarize, the objection from singular predication says that, on presentism, past-directed singularly-predicative propositions cannot be true, for there is no one of whom to predicate; the objection from singular propositions says that, on presentism, past-directed singular propositions cannot even exist in the first place.⁷⁵

Reply: Presentists have a number of possible replies. First, they could deny that propositions depend ontologically on their constituents—perhaps a proposition can continue to exist even when one of its constituents goes missing. Second, presentists could hold that singular propositions—all of them or some of them—have proxies for concrete individuals as constituents rather than the concrete individuals themselves. So long as the the proxies are in no danger of falling out of existence (so long as they are ontologically independent of the individuals they represent), the singular propositions are safe. Third and finally, presentists might simply jettison singular propositions—either in past-directed cases alone or in toto—and adopt an alternative theoretical machinery for truth-bearers and objects of attitudes. I discuss this objection and these replies at greater length in chapter four.

⁷⁵ To see that the objections from singular predication and singular propositions are really different objections, notice the following: those presentists who reject the ontological dependence of propositions on their constituents—i.e. those who reject what Plantinga (1983) calls “existentialism”—can hold, contra the latter objection, that the proposition *that Socrates was a philosopher* exists, but, given the success of the former objection, they cannot hold that this proposition is true. See also Crisp (2005, 2003).

Chapter 2. Ontology and Existence Simpliciter

According to one sort of skeptic about the presentism-eternalism dispute, presentism is either trivially true or trivially false, and there is no real dispute.⁷⁶ Anti-skeptics reply that the dispute is over whether merely past and merely future objects *exist simpliciter*. Skeptics balk at existence simpliciter—why take it seriously? In this chapter, I claim that existence simpliciter underlies disputes about three other ontological views: mathematical platonism, David Lewis’s modal realism, and a view—related to modal realism—that I call *isolationism*. I claim that if temporal skeptics renounce existence simpliciter, they face a broad ontological skepticism. Moreover, I claim that the case of isolationism offers a positive reason to be nonskeptical about both temporal and modal ontology.

I proceed as follows: I begin by outlining the skeptical position. In §2.2-§2.4, I show that, respectively, the disputes over mathematical platonism, modal realism, and isolated space-times plausibly depends on existence simpliciter. In particular, in each of these three cases, I show that parallel cases of reasoning by “ontological counting” are valid only if such reasoning employs a notion of existence that underpins ontological disputes. In §2.5, I consider the skeptical options for responding to the ontological counting arguments, including the option that the skeptic adopt *ontological pluralism*, the view that there are “modes” or “ways” of being. Finally, in §2.6, I conclude by

⁷⁶ Lombard (2010), Meyer (2005), Savitt (2006), and Stoneham (2009) are recent advocates of the skeptical view (or something near it). Anti-skeptics include Crisp (2004, 2003) and Sider (2006, 2001: 15-17).

considering whether “common sense” or “folk” belief has any bearing on the status of ontological disputes.

2.1 Skepticism

According to presentists, only present things exist. According to their rivals, eternalists, past, present, and future things exist. Prima facie, this is a good old-fashioned ontological dispute.⁷⁷ But consider a candidate formulation of presentism⁷⁸:

(1) **Presentism**: Only present things exist.

The skeptic asks: which sense of the word ‘exist’ is at play in (1)? If the present tense ‘exist’—i.e. ‘exist presently’—then (1) is trivially true. For it is trivially true that only present things exist presently. But if the de-tensed ‘exist’—i.e. ‘existed, exists, or will exist’—then (1) is trivially false. For it is trivially false that only present things did, do, or will exist.⁷⁹ (Dinosaurs, for example, existed but are non-present.) According to the skeptic, presentism is either trivially true or trivially false, and so there is no substantive ontological question here.

But the skeptic is mistaken. In denying, e.g., that there are dinosaurs, what presentists deny—and what eternalists affirm—is that dinosaurs exist *simpliciter*. What is existence *simpliciter*? I take existence *simpliciter* to be the most inclusive and

⁷⁷ Though I focus on the presentism-eternalism case, points raised here about that dispute apply *mutatis mutandis* to other views on temporal ontology, e.g. the growing block view.

⁷⁸ For brevity, I stick to a simplified version of the presentist thesis rather than one of the more precise formulations discussed in §1.3.

⁷⁹ I’m not using ‘trivial’ in a technical way. I assume that claims that amount to either obvious necessary truths or obvious empirical falsehoods count as trivial in the ordinary sense of the word.

fundamental type of existence, the one expressed by the unrestricted existential quantifier, $\exists x$.⁸⁰ To speak of existence simpliciter is to abstract away from the temporal location of a thing and to abstract away from whether that thing is a temporal object at all. To ask, e.g., whether a dinosaur or the number two exist simpliciter is to ask whether any such things are within the whole of being in the most inclusive sense; it is just to ask whether there are any such things, full stop.⁸¹

To forestall confusion about the sort of ontological skepticism I am opposing here, I note that there is a more general form of ontological skepticism that might be used to undercut the presentism-eternalism dispute. Eli Hirsch—esp. (2009, 2005, and 2002)—argues that certain physical object disputes in ontology—e.g. the dispute over whether there are strange mereological fusions—are merely verbal. According Hirsch’s brand of skepticism, two alleged “opponents” in some ontological arena do not really disagree so long as their positions can be inter-translated to mutual satisfaction, i.e. the claims on each side of the “dispute” can, in principle, be mapped into claims that the other side should accept. Taking, for example, the case of mereological composition, there is an alleged dispute over the following issue: Given some collection of objects, when does composition occur?⁸² The mereological universalist answers, “always”; the common-sense mereologist, “sometimes”; the mereological nihilist, “never”. By Hirsch’s lights,

⁸⁰ I use ‘exists simpliciter’ as synonymous with ‘exists tenselessly’, however I treat ‘exists atemporally’ as synonymous with ‘exists outside of time’.

⁸¹ As before, and pace the meinongian, I here treat the questions “what exists?” and “what is there?” as equivalent.

⁸² For an overview, see Korman (2011).

these alleged disputants are not really disagreeing substantively over the nature of reality, they are merely each choosing to *speak in a different language*. Roughly, each party is choosing to adopt a different quantifier when uttering English-language sentences of the form “there are Fs” or “there are not Fs”: The universalist adopts a maximally-inclusive quantifier that counts any arbitrary collection of objects as a separate object within its domain—e.g. an object composed of your nose and The Eiffel Tower is in the domain of this maximal quantifier, just as your nose and The Eiffel Tower are each individually in its domain. And similarly, the common sense mereologist and the nihilist adopt, respectively, a sort of common sense quantifier and a minimalist quantifier. According to Hirschian skepticism, so long as there is a way of treating each of these three philosophers as speaking truly in their preferred language (i.e. using their preferred quantifier), we need not see these three philosophers as having a genuine ontological dispute.

Perhaps Hirschian considerations can be extended to show that the presentism-eternalism dispute is merely verbal too. For perhaps a Hirschian can propose that when an eternalist makes a claim of the form “ $\exists xFx$ ” that this is equivalent to when a presentist makes a claim of the form “WAS($\exists xFx$) OR $\exists xFx$ OR WILL($\exists xFx$)”. Thus, presentists and eternalists do not really disagree, since, e.g., when an eternalist claims *that a dinosaur exists* this can be mapped into a claim that the presentist accepts, viz. *that there existed, exists, of will exist a dinosaur*.

The skeptic that I address in this chapter is not precisely a Hirschean skeptic, for the skeptic I wish to answer is not someone who ambitiously believes that claims within various ontological arenas can be inter-translated to the mutual satisfaction of the various parties. The skeptic I have in mind in this chapter is more straightforward. He does *not* come armed to the metaontological debate with a conciliatory theory—rather, he comes armed with a mere question: why believe in existence simpliciter? As I hope will become apparent, my way of answering this simple skeptic does have some bearing on Hirschean skepticism (specifically, it has some bearing on the the prospects for extending it to the presentism-eternalism dispute). Yet, the anti-skeptical arguments that I want to advance are not, I think, essentially anti-Hirschean arguments, for they do not seek, at bottom, to refute Hirsch’s reconciliation arguments.⁸³

With that said, we can fix on the skeptic at hand, viz. the skeptic who harbors suspicion of existence simpliciter. His position can perhaps be helpfully illustrated by the following speech:

Skeptic: It seems clear that so-called presentists and eternalists alike agree that dinosaurs existed. And it seems equally clear that both parties agree that dinosaurs do not exist presently. Indeed, it seems that both sides of this “dispute” can in principle agree over the truth values of all tensed existence claims whatsoever! So, where is the disagreement? You say that there is disagreement over whether, e.g., a dinosaur exists simpliciter. But what does it mean to assert that something *exists simpliciter*? I have little idea, since I have little idea what it means to say that a thing just *exists* in some unqualified, wholly general sense. Please do not respond by “explaining” existence simpliciter as the very notion of existence that underpins the presentism-eternalism dispute—that just begs the question against skeptics like me. So, if you can’t tell me why I should believe in existence simpliciter to begin with, then I have no choice but to regard it as unintelligible.

⁸³ See Sider (2006) for an argument that suggests that Hirschean skepticism cannot be extended to the presentism-eternalism case.

In response, I offer three anti-skeptical arguments, in increasing order of strength.⁸⁴ Each argument shows that some other dispute—beyond the presentism-eternalism dispute—hinges on existence simpliciter. If these other disputes are nontrivial, then so is the presentism-eternalism dispute.

2.2 The Platonist Argument

The first anti-skeptical argument concerns mathematical platonism, the view that numbers exist and are mind-independent objects that lack spatiotemporal location.⁸⁵

Consider an attractive form of reasoning, *The Platonist Argument*:

- (P1) The Eiffel Tower exists.
- (P2) The number two exists.
- (P3) The Eiffel Tower is distinct from the number two.
- ∴ At least two things exist.

Two plausible constraints hold:

- (C1) The Platonist Argument is valid.
- (C2) Platonists are willing to assert (P2).

The challenge for skeptics is this: give a sense of ‘exists’ that meets both constraints.

Anti-skeptics have a straightforward answer: ‘exists simpliciter’. But those who reject existence simpliciter are hard-pressed to meet the challenge.

By (C1), ‘exists’ must have a consistent sense throughout the reasoning. But ‘exists’ cannot, consistently with (C2), mean ‘exists presently’. For something to exist

⁸⁴ I here gauge argumentative strength by the availability and plausibility of skeptical rejoinders.

⁸⁵ For a few nice starting points in the enormous literature on platonism, see Linnebo (2009), Maddy (1990), and Szabó (2003).

presently, it must occupy the present. The platonist's numbers, however, are not temporally located. For the same reason, 'exists' cannot here mean 'did, does, or will exist'; the platonist's numbers are *never* temporally located. 'Exists' is, in The Platonist Argument, most plausibly understood as 'exists simpliciter'. (Some—call them “ontological pluralists”—wish to treat The Platonist Argument as an equivocation involving fundamentally distinct senses of 'exists'. After laying out all three anti-skeptical arguments, I consider the pluralist response in §2.5.)

Two caveats about The Platonist Argument. First, in debating the skeptic—in particular, in holding (C2)—I am not assuming that there are numbers. Rather, I am merely assuming that mathematical platonism is a coherent view in logical space, that the proposition *that numbers exist outside of time* is a view in the running. Anti-platonists too—whether they are nominalists who hold that numbers are in some sense reducible to spatiotemporal objects or whether they are nihilists who deny that there are numbers—should happily assent to (C2), so long as they see platonism as a coherent contender.

Second, I acknowledge that not every view of numbers treats them as atemporal objects. The sempiternalist, for instance, holds that while numbers are temporal objects, they exist at every time. I have no quarrel with sempiternalism. But it will not offer comfort to the skeptic. For sempiternalists *as well as* mathematical platonists ought to be willing to assert (P2) under some interpretation of 'exists' that renders The Platonist

Argument valid.⁸⁶ And whereas the skeptic can accommodate sempiternalism by treating ‘exists’ in The Platonist Argument as tensed, he can make no such accommodation in the case of platonism. So long as platonism is a coherent view, this is a problem for skepticism.

Thus, for The Platonist Argument to have anti-skeptical force, it is crucial that we respect the long-standing distinction between eternal entities (i.e. those that exist but lack temporal duration) and sempiternal entities (i.e. those that exist and have maximal temporal duration). Thus:

(2) The number two exists but does not exist presently.

While sempiternalists may regard (2) as a priori false on all readings of ‘exists’, platonists regard (2) as true on at least one reading, viz. ‘exists simpliciter’. Skeptics could protest that they find it not merely incorrect but rather *incoherent* that (2) could express a truth. But this, I take it, concedes my point that temporal skeptics adopt a form of skepticism about platonist ontology.

Not so fast, says the skeptic. The view that ‘exists’ is most plausibly read as ‘exists simpliciter’ in The Platonist Argument assumes that ‘exists’ cannot plausibly instead mean ‘exists presently’. And this assumes that something exists presently only so long as it temporally occupies the present. Why assume this? Are there not coherent

⁸⁶ The anti-skeptic can offer a single interpretation of ‘exist’ on which (C1) and (C2) are satisfied for both platonism and sempiternalism about numbers, namely, ‘exist simpliciter’. But, strictly speaking, it isn’t necessary that the platonist and sempiternalist interpretations agree, only that they exist. To meet the challenge, it would be sufficient for the skeptic to show that the sempiternalist has an interpretation of ‘exist’ that meets (C1) and (C2) and that the platonist has some other interpretation of ‘exist’ that meets (C1) and (C2).

statements—statements that even the platonist will accept—that say that some abstract entity exists presently? Consider the sentence “the number two exists now.” Insofar as this sentence is read as saying that the number two has a temporal location, platonists will not assert it. But “the number two exists now” need not be read this way. Instead, it can be read as saying that if we ask at the present time whether the number two exists, then the answer is that it does. This shows that ‘exists now’ and ‘exists presently’ are ambiguous between two readings, call them the *locational* and *relative* readings⁸⁷:

$(\forall x)x$ is **locationally present** iff x is temporally located at the present time.

$(\forall x)x$ is **relatively present** iff *that x exists* is true at the present time.

Numbers cannot, by the platonist’s lights, be locationally present, since they cannot be temporally located. But this is no obstacle to their being relatively present. If this is right, it shows that there is a reading of *the number two exists* on which ‘exists’ means ‘exists presently’ and yet where (C1) and (C2) are satisfied. If so, the skeptic need not countenance existence simpliciter after all.

But it is an illusion that by distinguishing these two ways of being present, we thereby remove the need for existence simpliciter. To see this, focus on the analysis of what it is for a thing to be relatively present. The analysis tells us that a thing, x , is relatively present just in case *that x exists* is true at the present time. But *that x exists* is

⁸⁷ One way of putting this point is that, on the locational reading, a time is a constituent of the proposition expressed, e.g. *the number two exists now* expresses (we may assume) a proposition that has the present time as a constituent. On the relative reading, a time is rather an operator on a proposition, and the proposition need not contain a time as a constituent, e.g. *the number two exists now* expresses a proposition where the present time is an operator on the tenseless proposition *that the number two exists*.

ambiguous. What sense of ‘exists’ is at play here? If the present tense ‘exists’, then we are in trouble. For then our analysis of the relative reading amounts to this:

$(\forall x)x$ is **relatively present** iff *that x exists presently* is true at the present time.

Of course, the expression ‘exists presently’, as it occurs in the analysans, is itself ambiguous between the locational and relative readings that we have just attempted to distinguish. ‘Exists presently’ cannot, on pain of circularity, here (in the analysans) mean ‘is relatively present’. Nor can ‘exists presently’ mean ‘is locationally present’, for we then rule out the possibility that numbers are relatively present, a possibility that motivated the distinction in the first place.

If *that x exists* (in the analysis of the relative reading) does not mean ‘exists presently’, what does it mean? The obvious alternative is *that x exists* means *that x exists simpliciter*:

$(\forall x)x$ is **relatively present** iff *that x exists simpliciter* is true at the present time.

On this reading, numbers and other abstracta can be relatively present. Given that the number two exists, then *that the number two exists simpliciter* is true at the present time. But this sense of being relatively present does nothing for the skeptic.

It therefore seems highly plausible that reasoning such as The Platonist Argument requires a generalized notion of existence. Can skepticism nonetheless be reconciled with The Platonist Argument? Although skeptics are suspicious of existence simpliciter, they might admit a generalized type of existence—one that applies to a thing whether it is

abstract or concrete—but hold that this generalized existence is to be innocently understood as a mere disjunction of skeptically-acceptable types of existence:

A thing **exists_d** iff it exists temporally (exists at a time) or it exists atemporally (exists outside of time).

But this disjunctive account is non-skeptical: Eternalists will claim that dinosaurs exist temporally; presentists will disagree. (Presentists will claim that while dinosaurs *existed* temporally, they do no longer.⁸⁸)

If the skeptic is to defend a disjunctive account, we need one where the ontological notions employed in the disjuncts do not allow temporal ontology disputes to re-emerge, e.g.

(Disjunctive Account) A thing **exists_d** iff it existed, it exists, it will exist, or it exists atemporally.

Here, we have a disjunctive analysis of generalized existence in terms of skeptically-kosher types of existence. Since, on Disjunctive Account, it trivially follows that dinosaurs exist_d (and that presentism is false when ‘exists’ means ‘exist_d’), and since Disjunctive Account gives a reading of ‘exists’ consistent with (C1) and (C2), skeptics have allegedly found their reconciliation.

But skeptics have not yet reconciled their skepticism with The Platonist Argument for two reasons: (a) we don’t yet have any reason to think that Disjunctive Account is the correct account of generalized existence; (b) it is far from clear why Disjunctive Account

⁸⁸ More generally, if skeptics concede the legitimacy of a type existence that is (a) tenseless, and (b) applicable to temporal objects, then their cause is lost: eternalists will claim that past things exist in the relevant tenseless way, and presentists will disagree and say that past things merely *did* exist in the relevant tenseless way.

is a genuinely *skeptical* account (i.e. one that trivializes presentism in the way required by skepticism). I consider these points in turn.

First, note that in arguing for triviality, disjunctive skeptics make certain ontological assumptions⁸⁹:

(3) There is no existence simpliciter in the sense intended by the ontological anti-skeptic.

(4) There is a generalized notion of existence, and Disjunctive Account gives its analysis.

(5) The disjuncts do not rely on existence simpliciter.

(5) is crucial: the disjuncts must capture notions of tensed and atemporal existence that are either primitive or analyzed so as to avoid existence simpliciter; otherwise, the presentism-eternalism dispute re-emerges. To see how assumption (5) might fail, note that one way to analyze tensed existence claims is via what Szabó (2007) calls “the standard quantificational semantics of tense”, e.g.

‘**a dinosaur existed**’ is true iff there exists simpliciter a past time, *t*, and a dinosaur exists simpliciter at *t*.

We might wish to similarly analyze atemporal existence in terms of existence simpliciter, negation, and temporal location, e.g.

‘**the number two exists atemporally**’ is true iff the number two exists simpliciter and it is not located at any time.

Since disjunctive skeptics cannot accept these analyses, they should tell us why their way of doing things is better—they should defend (4) and (5).

⁸⁹ When I say ‘triviality’, I of course mean ‘trivial falsity or trivial truth’.

Second, even if disjunctive skeptics can support their ontological assumptions, it is unclear how they thereby establish a triviality claim. For although presentism is false when ‘exists’ is read as ‘exists_a’, it is unclear how skeptics, in arguing for ontologically-substantive assumptions (4) and (5), have thereby shown that presentism is trivial in any interesting sense. An analogy: There are a variety of philosophical assumptions that, if accepted, entail the falsity of presentism, e.g. the two premises of a well-known sort of truthmaker argument:

(P4) Every positive, contingent truth has a truthmaker.

(P5) If presentism is true, then some positive, contingent truths—e.g. *that dinosaurs existed*—lack truthmakers.

∴ Presentism is false.

Given (P4) and (P5) as assumptions, it follows—it trivially follows!—that presentism is false. But it would be misguided to think that by establishing (P4) and (P5), one has established the trivial falsity of presentism. These are, after all, philosophically-controversial assumptions, and triviality given some nontrivial metaphysical assumptions is not the same as triviality simpliciter. Analogously, (3)-(5) are controversial assumptions about existence. And analogously, although doing the philosophical work to establish (3)-(5) would show that presentism is no longer in the running, it seems misguided to conclude that Disjunctive Account thereby establishes the triviality of presentism in the sense required by skepticism.

Suppose, however, that I’m wrong about Disjunctive Account; suppose that it really does establish the triviality of presentism. (Perhaps there is a disanalogy between Disjunctive Account and the truthmaker argument.) In that case, I claim that skeptics

face a new threat: an anti-skeptical modal argument. And whereas disjunctive skeptics may preserve the platonism dispute, such skeptics are less fortunate in the modal case.

2.3 The Modal Realist Argument

According to David Lewis's modal realism, there are possible worlds identical in kind to the actual world: each possible world is an existing, concrete, spatiotemporally-isolated universe.⁹⁰ Lewis claims that belief in such possible worlds allows for a theoretically-powerful account of modality (among other things).⁹¹ For our purposes, it doesn't matter whether modal realism is true or whether Lewis is right about its alleged virtues. What matters is that modal realism, like platonism, is at least a coherent view. Now consider a piece of reasoning that we may label *The Modal Realist Argument*:

- (P1) The Eiffel Tower exists.
- (P4) A talking donkey exists.
- (P5) The Eiffel Tower is distinct from all talking donkeys.
- ∴ (C) At least two things exist.

Two constraints govern our assessment of The Modal Realist Argument:

- (C3) The Modal Realist Argument is valid.
- (C4) Modal realists are willing to assert (P4).

The constraints are exceedingly plausible. The validity of The Modal Realist Argument is as obvious as that of The Platonist Argument. And modal realists are perfectly willing

⁹⁰ See Lewis (1986: 1-5, 69). More precisely, according to modal realism, each world, w , is a maximally spatiotemporally-unified object: each one of w 's parts bears a spatiotemporal relation to each one of its parts, and none of w 's parts bear a spatiotemporal relation to anything not a part of w .

⁹¹ Allegedly, it allows for a theoretically-powerful account of modality, closeness, content, and properties. See Lewis (1986: 5-69) and Divers (2002: 43-58).

to assert (P4); according to them, some possible worlds contain flesh-and-blood talking donkeys.⁹² Moreover, on modal realism, such donkeys exist in a different universe from our own but not in a different sense of ‘exist’. Thus, Yagisawa.⁹³

Possibilist realism takes non-actual possible objects to be (real, genuine) objects; it takes their metaphysical status to be on a par with that of actual objects. When possibilist realists assert, “Non-actual possible objects exist”, their word ‘exist’ has the same linguistic meaning as when actualists assert, “Actual objects exist”. Possibilist realists believe that some domains of discourse with respect to which ‘exist’ may be understood include more than actual objects, whereas actualists deny it. (Yagisawa 2009)

And Lewis:

The other worlds are of a kind with this world of ours... Some things exist here on Earth, other things exist extraterrestrially, perhaps some exist no place in particular; but that is no difference in manner of existing, merely a difference in location or lack of it between things that exist. Likewise some things exist here at our world, others exist at other worlds; again, I take this to be a difference between things that exist, not a difference in their existing... If I am right, other-worldly things exist *simpliciter*... (Lewis 1986: 2-3)

The modal anti-skeptic hastens to add that although modal realism may seem *implausible* or even *almost certainly false*, it is not *trivially false*.

Yet taking the modal realist’s existence claims at face value spells trouble for the temporal skeptic. The Modal Realist Argument cannot be interpreted as concluding that two things—the Eiffel Tower and a talking donkey—exist presently. The modal realist’s talking donkeys are denizens of spatiotemporally-remote worlds; such donkeys do not exist presently, since they do not exist at the present time of our world. For the same reason, the modal realist will not claim that talking donkeys did, do, or will exist. Nor will the modal realist claim that such donkeys exist atemporally; they are spatiotemporal

⁹² Modal realists will assert *that a talking donkey exists* so long as they take themselves to be speaking unrestrictedly. See Lewis (1986: 3).

⁹³ Yagisawa uses ‘possibilist realism’ instead of ‘modal realism’. In the present context, these are interchangeable; Yagisawa (2009) considers Lewis a “proponent of the best-known version of possibilist realism”.

beings, just not ones that are spatiotemporally-connected to *us*. The modal realist's claim is, as Lewis says, that such other-worldly donkeys exist simpliciter.

What moves are open to the skeptic? The skeptic could question the assumption that something exists presently only if it occupies the actual present. We might propose that, in a certain relaxed sense of 'exists presently', a talking donkey exists presently so long as it occupies the present of *some world*. But the problem is that, on Lewis's modal realism—which takes a four-dimensionalist, “block universe” view⁹⁴—non-actual worlds lack an identifiable present. Thus, consider a talking donkey world, *w*. Thanks to the temporal isolation of worlds, there is, from our perspective in the actual world, no fact of the matter about which of *w*'s times (within the four-dimensional block) is the present one. If we inhabited *w*, and we temporally overlapped with talking donkeys, then we could truly say that talking donkeys exist presently. But as non-inhabitants of *w*, we can only catalog its donkeys in terms of which ones are located at *w* and which tenseless temporal regions of *w* they occupy.

Of course, given counterpart theory, there is a fact of the matter about which time in *w* (if any) is a counterpart of our present time.⁹⁵ But this point will not help the skeptic for two reasons. First, if, on modal realism, a merely possible talking donkey exists at a time that has an actual world counterpart, it merely follows *that it's possible* that a talking donkey exists presently (or existed or will exist). Thus:

⁹⁴ See Lewis (1986: 202-205).

⁹⁵ For example, for Lewis, *that Humphrey might have won* is true iff there exists, in any world, an individual who bears the counterpart relation to Humphrey and who wins. See Divers (2002: 122-133) and Lewis (1986: 192-198) on counterpart theory.

(P2) A talking donkey exists.

(P2*) Possibly, a talking donkey exists.

Given modal realism and counterpart theory, (P2*) holds when ‘exists’ is tensed. But (P2)—the premise employed in The Modal Realist Argument—is only assertible by the modal realist if ‘exists’ means ‘exists simpliciter’. Second, surely the modal realist will accept the existence of some mere possible that exists at a time, *t*, that lacks an actual world counterpart—*t* differs too radically from all actual times to have any of them as counterparts. Therefore, (P2) can be replaced with a statement asserting the existence of such a mere possible, and the counterpart reply becomes unavailable.

To attempt to reconcile skepticism with The Modal Realist Argument, the skeptic might, as in the platonist case, opt for a disjunctive reading of ‘exists’, i.e. a modal analog of Disjunctive Account:

(Modal Disjunctive Account) A thing **exists_d** iff it existed, it exists, it will exist, or it possibly exists.⁹⁶

On the modal disjunctive reading of ‘exists’, The Modal Realist Argument is valid, (P2) is assertible by the modal realist, and presentism is false. But notice that on Modal Disjunctive Account it comes out true that:

(6) Talking donkeys, magical wizards, and fire-breathing dragons exist_d.

Thus, the disjunctive skeptic yields to The Modal Realist Argument by adopting the modal realist’s ontology of *implausibilia*. Moreover, insofar the skeptic himself takes the

⁹⁶ One interesting way of understanding the final disjunct is via Yagisawa’s (2008) proposal of modal tense. On the modal tense view, ‘exist’ can have either a temporal *or* a modal tense. On this approach, the four disjuncts achieve a kind of semantic parity.

Modal Disjunctive Account to trivialize the presentism-eternalism debate, analogous reasoning should persuade him that it trivializes the actualism-possibilism debate. For consider the modal analog of presentism:

(7) **Actualism**: Only actual things exist.

The modal skeptic asks: Which sense of ‘exist’ is at play? If the present tense ‘exist’, then (7) is trivially true. But if the disjunctive ‘exists_d’, then (7) is trivially false.

Disjunctive temporal skeptics should find this reasoning hard to resist—by their own lights, the actualism-possibilism dispute is as trivial as the presentism-eternalism dispute.

Of course, I argued in the previous section that such triviality reasoning fails: The Disjunctive Account leads (in the case of platonism) to presentism’s mere falsity, not its trivial falsity. If I’m right, then, by parity of reasoning, Modal Disjunctive Account also fails to establish presentism’s triviality. In particular, the skeptic may argue that Modal Disjunctive Account gives a correct analysis of **existence**. But since it is unclear why this analysis should itself count as trivially correct, it is therefore unclear why the triviality of presentism should follow from it. The upshot is that if Modal Disjunctive Account indeed fails to secure triviality, then a successful skeptic—a skeptic who successfully establishes the triviality of presentism—cannot rely on Modal Disjunctive Account to make sense of The Modal Realist Argument. But if I’m wrong, and Modal Disjunctive Account does establish triviality, then it does so for both presentism and modal realism. Either way, temporal skeptics are unable to account for the substantiveness of modal realism—temporal ontology skeptics are modal ontology skeptics as well.

I now turn to the third and strongest anti-skeptical argument; in the forthcoming case, the disjunctive response seems unavailable entirely.

2.4 The Isolationist Argument

Van Inwagen (1986) objects to modal realism on the grounds that even if there exist isolated spacetimes, it's hard to see why they should have modal significance. For example, it's hard to see why the modal realist's alleged fact *that no million-carat diamond is spatiotemporally related to us but some million-carat diamond is spatiotemporally isolated from us* should count in favor of the proposition *that a million-carat diamond is possible but not actual*. Van Inwagen's complaint inspires a third anti-skeptical argument. Call a view *isolationist* when it posits the existence of two or more mutually-isolated spacetimes—that is, two or more spacetime regions that bear (and whose parts bear) no spatiotemporal relations to each other. Modal realism is a form of isolationism, but isolationism per se is a significantly weaker thesis than modal realism. It is weaker ontologically, since it claims nothing about the number or variety of isolated spacetimes (beyond that there are at least two of them).⁹⁷ It is also weaker ideologically, since it claims nothing about the modal significance of the isolated spacetimes—as far as the mere isolationist is concerned, the existence of isolated spacetimes may well be irrelevant to the truth of modal claims.⁹⁸

⁹⁷ On Lewis's modal realism, the spacetimes (worlds) must be plenitudinous and varied enough to support the demands of modality, closeness, content, and properties. See Lewis (1986: 1-69).

⁹⁸ Thanks to John Divers for suggesting isolationism.

Consider an isolationist who contends that there are certain objects, *d-particles*, that exist only in spacetimes outside our own. This isolationist may reason analogously to the platonist and modal realist:

- (P1) The Eiffel Tower exists.
- (P2) A *d-particle* exists.
- (P3) The Eiffel Tower is distinct from all *d-particles*.
- ∴ At least two things exist.

But The Isolationist Argument is harder to reconcile with skepticism than The Modal Realist Argument, for the skeptic's conciliatory reply—a disjunctive account of 'exists'—is unavailable. Since isolationism per se has no modal import, no relevant disjunct is available to add to the de-tensed 'existed, exists, or will exist'.⁹⁹ On mere isolationism, *d-particles* exist simpliciter, but they are neither atemporal things nor mere possibilia.

One possible reaction to isolationism is that stripping isolated spacetimes of modal significance makes their existence unmotivated. Why believe a thesis so strange as isolationism if not to gain some ideological benefits? But the isolationist case against skepticism requires only that isolationism is coherent, not that it is well-motivated. Moreover, isolationism may well turn out to be motivated. For it seems at least epistemically possible that isolationism will turn out to play a role in the eventual physics.¹⁰⁰ After all, it seems to require unreasonable confidence and undue arbitrariness to hold that the complete physics, however it turns out, will rule out isolated spacetime

⁹⁹ Skeptics should not, on pain of self-defeat, offer as a fourth disjunct some tenseless temporal notion, e.g. 'exists in a spacetime'. For then temporal ontology disputes reemerge: do merely past and future objects exist in *this* spacetime? The answer is nontrivial.

¹⁰⁰ Bigelow and Pargetter (1990: 191-192) note that isolationism is permitted on Einstein's theory of general relativity.

regions. Thus, isolationism confronts skeptics with a dilemma. On the one horn, they deny that there is any substantive question of whether d-particles exist simpliciter, a denial that flies in the face of the epistemic possibility that d-particles play a role in the eventual physics. On the other horn, skeptics concede that there is a substantive question of whether d-particles exist simpliciter, a concession that flies in the face of the skeptic's denial that there is a substantive question about whether, e.g., merely past dinosaurs exist simpliciter.

I've now offered three anti-skeptical arguments. Where does that leave us? The Platonist and Modal Realist Arguments show that temporal skeptics are committed to a kind of mathematical and modal skepticism. But I haven't yet argued that mathematical and modal skepticism are in themselves bad. By the lights of The Platonist and Modal Realist Arguments, I have at best shown that temporal skepticism is conditionally bad—to the extent that one takes mathematical and modal ontology seriously, one should take temporal ontology seriously as well. But the isolationist argument goes rhetorically further—it borders, I think, on a *reductio* of skepticism. Whereas a skeptic about mathematical or modal ontology need merely deny the coherence of platonic numbers or Lewis's possible worlds, a skeptic about isolationist ontology will deny that d-particles are epistemically possible. That is, the skeptic takes the following claim to be non-substantive or incoherent in some sense: It is epistemically possible that d-particles exist simpliciter. Any theory that posits d-particles is, by skeptical lights, *ipso facto* non-substantive or incoherent. And this seems an unacceptable price of skepticism. For this

reason, The Isolationist Argument seems to me stronger than the previous anti-skeptical ones: it gives us at least some reason to see skepticism as intrinsically misguided.

2.5 Skeptical Options

Can temporal skeptics stick to their guns and remain skeptical? Here are the skeptical options as I see them.

First option: The temporal skeptic publicly embraces a broader ontological skepticism. In particular, the skeptic concedes that, absent existence simpliciter, we cannot make sense of the platonism, modal realism, and isolationism disputes and that this explains why we cannot make sense of The Platonist, Modal Realist, and Isolationist Arguments. On this line of thinking, there is no sense of ‘exists’ that simultaneously renders The Arguments valid and (P2)—viz. *the number two (a talking donkey, a d-particle) exists*—assertible by the platonist (modal realist, isolationist). As I think the isolationist case shows, this is a costly a bullet to bite.

Second option: The temporal skeptic tries to make sense of The Arguments, as much as possible, by defending a disjunctive account of ‘exists’. But if I’m right about the disjunctive accounts, they fail to secure the temporal skeptic’s wanted triviality claim. On the other hand, if I’m wrong, and the disjunctive accounts do secure triviality, then disjunctive skeptics secure the triviality of the presentism dispute along with securing the triviality of the modal realism dispute. And since the disjunctive account is unavailable for isolationism, disjunctive skeptics are also at a loss to explain its substantiveness.

Third option: The skeptic might claim that we needn't treat The Arguments as valid in order to make sense of platonism, modal realism, and isolationism. True, the skeptic could say, there is a sense of 'exists'—'exists presently'—on which we can coherently assert (P1), *the Eiffel Tower exists*. And there is a sense of 'exists'—'exists atemporally' or 'exists in a possible world' or some other sense—on which we can coherently assert (P2), *the number two (a talking donkey, a d-particle) exists*. But there is no existence simpliciter that underlies these multifarious *existences*. Rather, there are fundamentally distinct ways of existing, and so The Arguments are, on their faces, equivocations.

The view that there are fundamentally distinct ways of existing is, I think, radical but legitimate. Call it “ontological pluralism”, after Turner (2010).¹⁰¹ If ontological pluralism lies behind temporal skepticism, skeptics should say so. But skeptical pluralists have burdens to discharge: First, they should spell out, in detail, why pluralism leads to (or is at least consistent with) temporal skepticism. They should explain, in other words, how adopting fundamentally distinct types of existence implies that there is no substantive question, for any of these distinct types of existence, whether past and future things exist. Second, if pluralists claim that their view leads to skepticism about temporal ontology but not about other ontological disputes, the burden is on them to show the asymmetry. If they cannot, then pluralistic temporal skeptics, like other temporal

¹⁰¹ Pluralism has a long lineage; see McDaniel (2009) and Turner (2010) for historical references.

skeptics, must either embrace a more widespread ontological skepticism or renounce skepticism altogether.

2.6 Ontology and Common Sense

The preceding discussion has, I think, an interesting implication for so-called “common sense” or “folk” belief. So, I want to close by considering the role common sense plays in determining the plausibility of modal and temporal ontology views.

It is often said—perhaps rightly—that common sense is a virtue in philosophy. And this usually means something like: Philosophers should try to see that their views—and the implications of their views—do not clash with common sense. If a philosophical view *does* clash with common sense, then we should accept such a view only if there are powerful reasons to accept it, reasons that strongly outweigh any reasons against the view and that more than make up for the view’s discordance with common sense. There is of course room for variance—within the pro-common sense camp—over just how important common sense is in philosophy. At one end of the spectrum may sit the *common sense dogmatists* who say that one should *never* adopt a philosophical view that is at odds with common sense.¹⁰² In the middle, perhaps, are the *common sense moderates* who say that if a view is at odds with common sense, then this a positive reason—though not

¹⁰² Does the Moorean response to skepticism count as dogmatic in this sense? Perhaps not, for the Moorean claims roughly that the common-sense proposition *that I know that I have hands* is never less plausible on its own than the premises in any epistemic skeptical argument to the contrary. Therefore, the Moorean seems to reject the skeptical implication—viz. *that I do not know that I have hands*—not simply on the grounds that it is anti-common sense, but rather out of a comparative plausibility judgment between the negation of that proposition and the premises of a skeptical argument. On the Moorean line, See Huemer (2001: 27-50) and Pryor (2000).

necessarily a decisive one—to reject that view. And at the far end of the pro-common sense spectrum sit the *common sense tie-breakers* who say that, all else being equal, we should pick the philosophical theory least at odds with common sense, yet common sense is no more than a tie-breaker. I do not wish to here choose among these options, nor, in fact, do I wish to take any stand on the value of common sense in philosophy. Rather, I merely wish to assess where temporal and modal ontology views stand with respect to common sense. Are such views ever on the side of common sense? Are they ever opposed to it?

Before answering, we should ask: what are common sense beliefs? According to Huemer (2001: 18), such beliefs usually have three characteristics:

- (i) They are accepted by almost everyone (except some philosophers and some madmen), regardless of what culture or time period one belongs to.
- (ii) They tend to be taken for granted in ordinary life.
- (iii) If a person believes a contrary of one of these propositions, that is a sign of insanity.

Common sense propositions therefore include those such as:

- (8) I have hands.
- (9) Birds exist.
- (10) The Earth existed five minutes ago.

Huemer's criteria for common sense beliefs strike me as plausible ones. In particular, I will assume that, at a minimum, criterion (i)—being accepted by most people (including most non-philosophers)—is a necessary condition for being a common sense belief.

The epistemological skeptic is infamous for calling such common sense propositions into question. One kind of skeptic, the external world skeptic, believes that we cannot know that we are not brains-in-vats (as opposed to regular human beings that walk around and have arms and legs, etc.). Therefore, by epistemic skeptical lights, we cannot rule out the possibility that the apparent, external world objects of perception—birds, The Earth, our own hands, etc.—are in fact unreal, their appearances to be explained by some elaborate hoax. Crucially, the epistemic skeptic does not assert that such common sense propositions are *false*. Rather, he says that, given the truth of skepticism, we simply do not—and perhaps cannot—*know* whether they are true. In what sense, then, does skepticism run afoul of common sense? Answer: Skepticism runs afoul of common sense because, e.g., most people surely believe *that I know that birds exist*, yet skepticism entails that this is false.

Given the above notion of common sense belief, some philosophical views count as anti-common sense, e.g.:

(External World Skepticism) We cannot know anything about the external world. Ergo, it is false *that I know that birds exist*.

(Compositional Nihilism) There are no composite objects—there are only simples. Ergo, it is false *that tables exist*.¹⁰³

(Moral Nihilism) Nothing is morally wrong. Ergo, it is false *that murder is wrong*.¹⁰⁴

¹⁰³ See Korman (2011) and Van Inwagen (1990b).

¹⁰⁴ See Mackie (1977) and Sinnott-Armstrong (2011).

In some cases, a view that seems at first to be very anti-common sense may turn out to be not quite so bad. For instance, in the case of mereological composition, perhaps the nihilist can lessen the sting of his view by explaining that, although there are no tables, there are *atoms-arranged-table-wise* (or *quarks-arranged-table-wise*, or whatever) and this helps to explain why we labor under the delusion that there are tables. In other words, if the anti-common-sense philosopher can offer an error theory about our beliefs, a theory that explains why so many of our beliefs turned out to be mistaken, then perhaps this lessens the sting of this philosopher's variance with common sense. This is all well and good, and the right error theory may indeed lessen the sting of a seemingly strange view. What I wish to observe here is merely that, before any such error theory is on the table, these views *per se*—external world skepticism, compositional nihilism, moral nihilism—surely count as being at odds with common sense. And that is all that I wish to observe here: some philosophical views are, by themselves, anti-common sense.

Now to the key question: do views about temporal and modal ontology—the views that we've considered in this chapter—ever count as on the side of (or as opposed to) common sense? My answer: no. And my reason for this answer is very straightforward: being believed by most people (including most non-philosophers) is a necessary condition for being a common sense belief. But temporal and modal ontology beliefs are beliefs about what *exists simpliciter*. And most people, being non-philosophers, have no beliefs about what exists simpliciter. Therefore, temporal and modal ontology beliefs are neither pro- nor anti-common sense.

Why do I say that most people lack beliefs about what exists simpliciter? Again, my reason is straightforward: *Existence simpliciter* is a philosophical term of art. Understanding the distinction between “exists” (present tense existence) and “**exists**” (existence simpliciter) requires understanding a *metaphysically-nuanced* distinction, a distinction between tensed and tenseless modes of the verb “exist”. And it is implausible that most non-philosophers employ this distinction in their ordinary, common sense judgments about what exists. Of course, I fully grant that nearly everyone has a wide-range of beliefs about what exists (present-tense). Most people believe in: tables, chairs, birds, mountains, oceans, the planet Earth, their own hands, etc. And most people, I take it, would claim to *know* that there are such things. And this is precisely why mereological nihilism and external world skepticism are, *prima facie*, anti-common sense views. But, as we’ve seen, the presentism-eternalism and actualism-possibilism disputes do not concern what exists (present-tense). All sides of these disputes agree that dinosaurs existed but do not exist and that fire-breathing dragons do not exist but could have. What these parties disagree about is something that non-philosophers plausibly have no opinion about whatsoever: whether such entities **exist**.

I might be accused here of conducting a priori psychology. How can I be sure what the folk believe without asking them? How can I be sure that most people lack beliefs about what **exists**? Yet I think that what I say is quite plausible, even without polling the folk. In fact, I think that polling the folk about what **exists** would be ineffective; absent additional explanation—e.g. some kind of philosophy tutorial—most

of the folk wouldn't understand, let alone have an opinion about, what **exists**. I do not take this to be any more controversial than claiming that the folk are unlikely to have opinions about the truth of the following claims:

(11) There are a posteriori, synthetic, necessary truths—e.g. *that water is H₂O*.

(12) The Liar proposition—viz. *that this proposition is false*—lacks a truth value.

(13) There are some classes whose members do not form a set—e.g. the class of all ordinal numbers.

Understanding these claims—just like understanding the ontologist's claims *that Caesar exists* or *that talking donkeys exist*—requires understanding the relevant technical, philosophically-nuanced distinctions, viz. synthetic vs. analytic, a priori vs. a posteriori, necessary vs. contingent, having a truth value vs. lacking one, class vs set. Most philosophers would concede, I think, that there is little reason to expect that most people currently have any beliefs on whether (11)-(13) are true—these claims are just not the right sorts of claims to count as being pro- or anti-common sense. Similarly, the claims of temporal and modal ontologists are just not the right sorts of claims to count as being in the domain of common sense (or anti-common sense).

The upshot of all this is that ontologically-conservative views such as presentism and actualism have no right to claim the title of “common sense view” (whatever value such a title may have). This is significant, I think, because it contradicts the impulse—or even the considered judgment—of some presentists who attempt to claim precisely this title, as when Bigelow (1996: 35) says that “[presentism] was believed by everyone, both

the philosophers and the folk, until at least the nineteenth century; it is written into the grammar of every natural language...” Or as when when Markosian (2004: 48) says that “I endorse Presentism, which, it seems to me is the ‘common sense’ view, i.e. the one that the average person on the street would accept.” And equally, it contradicts the impulse of actualists who wish to proudly say that their ontology is more common-sensical than that of the possibilist, himself so decadent as to believe in mermaids, dragons, and million-carat diamonds.

Have I committed myself to saying that all modal and temporal ontology views are, with respect to intuitive plausibility, equal? Have I committed to saying that eternalism and possibilism are no less initially plausible than presentism and actualism? No. For there is a distinction between common sense and intuitive plausibility. For example, it may be initially intuitively plausible when learning Set Theory 101—before one reaches the section on Russell’s Paradox—to think that naive comprehension is true, i.e. that any arbitrary collection forms a set. Yet naive comprehension is doubtfully a part of common sense, for it is doubtful that most people have ever considered the issue of whether certain objects form a set. Similarly, it may be intuitively plausible—yet no part of common sense—that action at a distance is metaphysically impossible. Or that no wooden chair could have been made of fire. Or that every event is caused. *Many* philosophical positions may be, I take it, intuitively plausible or implausible without thereby being on one or the other side of common sense. Those who feel compelled to incredulously stare at holders of strange views should not lose heart. When the modal

realist asserts *that, in another concrete possible world, **existing** leprechauns are happily hoarding their gold*, the actualist should feel free to incredulously stare. When the eternalist asserts *that, in the past, **existing** Roman Gladiators **are** ferociously fighting to the death*, presentists should feel free to do the same. (Or perhaps, given that eternalism is much less grandiose than modal realism, presentists should restrain themselves and only raise an eyebrow by a couple of centimeters.) But, if what I have said is right, then in neither case should the ontological conservative view his incredulity as an act of solidarity with the folk at-large.

Chapter 3. Presentism and Grounding

One of the most prominent objections to presentism is that it seems to conflict with certain intuitive “grounding principles” according to which true propositions depend for their truth on the world—e.g. given presentism, *that dinosaurs existed* should be true, yet no existing dinosaurs are available to ground the truth of this proposition. Some presentists claim that presentism is compatible with strong grounding principles so long as presentists pay the metaphysical price of endorsing tensed facts or ersatz times. In this chapter, I claim that presentists may reject the strong principles unless we have some non-question-begging reason—some reason that does not assume the falsity of presentism—why grounding itself requires the strong principles. In particular, by distinguishing how the world **is tenselessly** (is simpliciter) from how the world is, was, and will be, presentists may reject strong grounding principles in favor of weak, presentist-friendly analogues.

I proceed as follows: I begin by giving two precisifications of the grounding principle: truthmaking and supervenience. In §3.2, I give the grounding argument against presentism. In §3.3, I argue that we should distinguish between eternalist and presentist notions of grounding; once this distinction is in hand, the grounding argument is undercut. In §3.4, I show how the presentist’s notion of grounding leads to presentist-friendly truthmaking and supervenience principles. In §3.5, I consider whether the grounding argument might be extended to the modal case. In §3.6, I address some potential objections.

3.1 Grounding, Truthmaking, and Supervenience

Philosophers disagree a lot about truth. But many of them agree about at least this much:

Truth is grounded; true propositions depend for their truth on the world. As Rodriguez-Pereyra puts it:

...truth is grounded. In other words, truth is not primitive. If a certain proposition is true, then it owes its truth to something else: its truth is not a primitive, brute, ultimate fact. (Rodriguez-Pereyra 2005: 21)

On what do propositions depend? To what do they owe their truth? A neutral—and as yet, unhelpful—answer: *the world*. Call this *the grounding requirement*:

(Grounding) Every true proposition depends for its truth on the world.¹⁰⁵

To many, Grounding sounds like a truism. But some think that it should be understood in a way that is far from truistic. In particular, some think that Grounding should be precisified to say that every truth has a truthmaker, an entity whose mere existence guarantees its truth.¹⁰⁶ Call this *the truthmaker principle*:

(Truthmaker) Necessarily, for any true proposition P , there exists something T such that T 's existence necessitates the truth of P .

As Molnar explains, Truthmaker theory is meant to cash out and give explanatory weight to Grounding:

¹⁰⁵ Two caveats. First, we might exempt necessary truths, as they are true *irrespective* of the world—see Fine (2005) for discussion. Second, every proposition is, properly speaking, itself a part of the world. We might then modify Grounding to say that, for every contingently true proposition P , P depends for its truth on the world (other than the truths themselves). For simplicity, I mostly ignore these complications, as they are largely tangential to the grounding argument. But see §4 on the first point.

¹⁰⁶ What are truthmakers? States of affairs, tropes, and ordinary particulars are among the options. For present purposes, nothing hangs on this choice. For differing views on the nature of truthmakers, see Armstrong (2004), Beebe and Dodd (2005), Lewis (2003), and Parsons (2005).

Truthmaker theory is a theory of the groundedness of truth values. Minimally, such a theory would enable one to identify whatever it is that explains why the truth-bearers have the truth-values they have. (Molnar 2000: 82).

But Truthmaker is saddled with problems. First, negative existentials. On Truthmaker, some existing thing is such as to necessitate the truth of *that there are no unicorns*. But which entity is fit to do the job? No obvious candidate presents itself. Second, necessary truths. On the natural way of understanding Truthmaker—namely, that *T* necessitates *P* just in case, necessarily, *T* exists only if *P* is true—every existing thing counts as a truthmaker for every necessary truth. But it's bizarre, for example, to treat my black chair as a truthmaker for the necessary truth *that all red things are colored*.¹⁰⁷

In response to such difficulties, Bigelow and Lewis have defended a more modest precisification of Grounding, namely, the thesis that *truth supervenes on being*:

(TSB) For any proposition *P* and any worlds W_1 and W_2 , if *P* is true in W_1 but not W_2 , then either something exists in one world but not the other, or else some object instantiates a property or a relation in one world but not the other.¹⁰⁸

On TSB, no worlds differ among their truths without also differing among their inventory of existing things or their instantiation pattern of properties or relations.¹⁰⁹ Happily, TSB avoids Truthmaker's problems with necessary truths and negative existentials: Since no worlds differ among necessary truths, no special entity is required to secure their truth.

Nor does TSB require any special entities to ground negative existential propositions. It

¹⁰⁷ Given these problems, can Truthmaker (or something in its vicinity) be salvaged? For discussion, see Armstrong (2004) and (2003), Cameron (2008), Lewis (2003) and (2001), Merricks (2007), Molnar (2000), Restall (1996), and Rodriguez-Pereyra (2005).

¹⁰⁸ My formulation here is similar to Lewis (2001, p. 612). See also Bigelow (1988, p. 133) and Merricks (2007, pp. 68-97).

¹⁰⁹ Note that Truthmaker entails TSB but not vice versa.

merely requires that, e.g., *that there are no unicorns* does not differ among worlds unless those worlds differ among what exists at them. But TSB gives rise to an argument against presentism. I now explore this argument.

3.2 The Grounding Argument Against Presentism

To start, note that while presentists and eternalists disagree about the ontological status of past things, they ought to both agree that there are many *truths* about the past. Among them:¹¹⁰

- (1) There were dinosaurs.
- (2) The Ottoman Empire once spanned three continents.
- (3) Apollo 11 landed on the Moon in 1969.

But the presentist's ability to treat (1)-(3) and their ilk as true clashes with TSB.¹¹¹ For consider (1). On TSB, this truth supervenes on being: *That there were dinosaurs* could not have been false unless there had been some difference in the **existing** entities or the **existing** instantiation pattern. And, on presentism, the present entities and the present instantiation pattern exhaust the **existing** entities and the **existing** instantiation pattern. But, presumably, the same things could have presently existed and the same instantiation pattern have presently held and yet *that there were dinosaurs* been false. (For imagine the far-fetched but metaphysically possible "skeptical scenario" where things are

¹¹⁰ Since it's controversial whether there are truths about the future, I'll focus my examples on the past.

¹¹¹ My reasoning here is similar to Crisp (2007). See also Bourne (2006), Cameron (2011), Keller (2004), Kierland and Monton (2007), Merricks (2007, pp. 74-80), Sider (2001, pp. 35-42), and Tooley (1997, pp. 234-240).

presently just as they are presently in the actual world but where the universe sprang into existence ten minutes ago.) It follows that, on presentism, *that there were dinosaurs*—and, by analogous reasoning, (2), (3), and other past-tense truths—fails to supervene on the **existing** entities and the **existing** instantiation pattern. The presentist is thereby thought to be forced into the embarrassing position of either denying a plausible principle, TSB, or else renouncing (1)-(3) and their ilk.

How shall the presentist respond? Since I assume it better to renounce presentism than past-tense truths, there are two options. The first option is that the presentist deny that things could have been just as they are and yet *that there were dinosaurs* been false. One version of this option is *tensed-facts presentism*, the view that past-tense truths are grounded by presently-existing tensed facts (e.g. the fact that the world previously contained dinosaurs).¹¹² Another version is *ersatz presentism*, the view that past-tense truths are grounded by an ersatz structure (e.g. an *ersatz B-series*—maximal propositions that describe instantaneous past, present, or future states of the world and that are linked by a primitive temporal accessibility relation). On both views, it's false that things could have been just as they are and yet *that there were dinosaurs* been false, for on both views the truth of *that there were dinosaurs* can vary only with a corresponding variance in the

¹¹² Some subtlety is needed. Suppose that some facts are concrete. If so, tensed-facts presentists may choose to treat their tensed grounding facts as *sui generis* entities, lest they potentially commit themselves to a presentist-unfriendly ontology of ordinary concrete past and future things.

existing tensed facts or ersatz structure. These approaches have been defended by a number of presentists, though I do not here explore the views.¹¹³

The second option is that the presentist deny TSB. To determine whether this is a costly option, we should ask *why* so many treat TSB as unassailable. One answer is that many hold TSB to be minimally required by Grounding. If truth is grounded in the world, the thought goes, then surely at least TSB must be true. This suggests a *master grounding argument* against presentism:

(P1) Grounding is true.

(P2) If Grounding is true, then TSB is true.

(P3) If TSB is true, then presentism is false.

(C) Presentism is false.

Many presentists respond that if we bolster our metaphysic with tensed properties or an ersatz structure, TSB is then compatible with presentism.¹¹⁴ I respond that presentists need not quarrel with (P3). For absent independent motivation to accept TSB, the presentist may remain steadfast. The master grounding argument alleges to bridge the gap by giving this independent motivation. But it does *not* bridge the gap. On presentism, truth may be grounded and yet TSB may be false.

¹¹³ See Bigelow (1996) for a defense of tensed-facts presentism. See Bourne (2006) and Crisp (2007) for defenses of ersatz presentism. See Cameron (2011) and Keller (2004) for related TSB-preserving approaches.

¹¹⁴ Many, but not all. See Merricks (2007, pp. 68-97) and Kierland and Monton (2007).

3.3 Grounding: Eternalist and Presentist

Is TSB a *prima facie* plausible principle? Many think so. But unless the issue of temporal ontology is prejudged in favor of eternalism, TSB may, on reflection, lose some of its appeal. (At the risk of being a nag, let us keep in mind that we use the bolded ‘**is**’ and ‘**exist**’ to mean ‘is tenselessly/simpliciter’ and ‘exist tenselessly/simpliciter’, for this usage will be crucial in responding to the grounding argument.) On eternalism, how the world **is** includes how it was, and it thus seems very likely that *that there were dinosaurs* (and other past-tense truths) should supervene on how the world **is**.¹¹⁵ But on presentism, how the world is presently exhausts how it **is**, and it therefore seems dubious that *that there were dinosaurs* (and other past-tense truths) should supervene on how the world **is**.¹¹⁶ This suggests that the plausibility of TSB depends on a prior choice of ontology. If we leave open the ontological question of whether presentism or eternalism is correct, truths such as *that there were dinosaurs* stand as potential (but conspicuous) counterexamples to TSB.

But presentists cannot simply jettison TSB without further comment. For the question arises: If TSB is jettisoned, then in what sense is truth grounded? If some true proposition *P* fails to supervene on the **existing** entities plus the **existing** instantiation pattern, is this not just to say that *P* is ungrounded, that *P* fails to depend for its truth on

¹¹⁵ I use ‘how the world is’ as shorthand for ‘the things that exist and the instantiation pattern of properties and relations’ (and *mutatis mutandis* for ‘how the world was’ and ‘how the world will be’).

¹¹⁶ Tensed-fact and ersatz presentists of course *do* think that past-, present-, and future-tense truths supervene on how the world **is**. But these varieties of presentism involve telling a metaphysical story. My point is that before it occurs to her to tell a story, the presentist has no *prima facie* reason to think that all truths supervene on how the world **is**.

the world? It depends on what we mean by a proposition's being grounded and, in turn, on what we mean by a true proposition's depending for its truth on the world. Recall:

(Grounding) Every true proposition depends for its truth on the world.

Grounding is ambiguous, for the presentist, between two readings:

(E-Grounding) Every true proposition depends for its truth on how the world **is**.

(P-Grounding) Every true proposition depends for its truth on how the world was, is, or will be.

I label these principles 'E-Grounding' and 'P-Grounding', for *eternalist grounding* and *presentist grounding*. (Keep in mind that 'is' is tenseless in the former.) For the eternalist—who believes that how the world **is** includes how it was, is, and will be—these principles are equivalent.¹¹⁷ But for the presentist—who believes that how the world **is** is limited to how it is presently—they are distinct. By presentist lights, P-Grounding may be true even if E-Grounding is false. By eternalist lights, they stand or fall together.

If every true proposition depends for its truth on how the world **is**, then we should expect, at a minimum, that no worlds differ among their truths without also differing among their **existing** things or their **existing** instantiation pattern. If E-Grounding holds in other words, then we should expect TSB to hold as well. But why should the presentist assume that every true proposition depends for its truth simply on how the

¹¹⁷ Or, more carefully, these principles are equivalent modulo truths about objects that exist outside of time. That is, perhaps there are truths about atemporal things, truths that depend on how the world **is** but not on how the world was, is, or will be. I ignore such truths since they seem to make no difference to the grounding argument.

world **is**, rather than on how it was, is, or will be?¹¹⁸ I propose that she shouldn't. By trading E-Grounding for P-Grounding, the presentist can say that while *that there were dinosaurs* doesn't depend for its truth on how the world **is**, it does depend for its truth on how the world was. The presentist can then hold that while *that there were dinosaurs* lacks a truthmaker, *that there are dinosaurs* used to have a truthmaker. On P-Grounding, this is sufficient for treating *that there were dinosaurs* as grounded. For on P-Grounding, if every truth (or its present-tense analog) had, has, or will have a truthmaker, then every true proposition depends for its truth on how the world was, is, or will be.¹¹⁹ Similarly for supervenience: If every truth supervenes upon what did, does, and will exist plus the past, present, and future instantiation pattern, every truth thereby depends on how the world was, is, or will be.

Those accustomed to reading Grounding as E-Grounding may object that on P-Grounding presentism, *that there were dinosaurs* is simply a *free-floating* proposition: It has no ground at times when there **are** no dinosaurs. But real grounding, they will say, requires an *existing* ground at all times, not one that comes and goes. I respond that this is to suppose a certain view of grounding, one that we are not entitled to suppose without argument. The question is whether P-Grounding is, on presentism, a legitimate

¹¹⁸ Sanson and Caplan (2010) argue along similar lines. They restrict their attention to the presentist's *ideological challenge* of accounting for "the properties and relations that things once instantiated", whereas I am concerned also with the presentist's *ontological challenge* of accounting for the things that once existed.

¹¹⁹ I assume that the presentist employs tense operators to construct past- and future-tense propositions from present-tense (or tenseless) ones. Thus, *that there were dinosaurs* is constructed by embedding *that there are dinosaurs* within the past-tense operator, WAS. Accordingly, WAS(*that there are dinosaurs*) is grounded just in case *that there are dinosaurs* was grounded.

disambiguation of Grounding, one that respects “real grounding”. To answer, we should ask why anyone believes Grounding to begin with. Here are two possible answers: (a) one has a pre-theoretical intuition that favors Grounding; (b) one engages in some philosophical reflection that favors Grounding.

Suppose that support for Grounding comes from some sort of pre-theoretical intuition about the nature of truth. Call such an intuition *the grounding intuition*. Does the grounding intuition explicitly favor E-Grounding over P-Grounding? It would be odd if it did. If the intuition were pre-theoretical, it would be surprising if it were metaphysically-nuanced enough to discern between characterizing the world as it is tenselessly and characterizing the world as it was, is, and will be. For the distinction between tensed and tenseless existence and between tensed and tenseless property instantiation is a metaphysically-nuanced distinction, and one should, in general, not expect that metaphysically-nuanced distinctions—ones that rely on technical, philosophical terminology to make—will be tracked in pre-theoretical belief. I am not, of course, claiming that it is *impossible* that this distinction be tracked in pre-theoretical belief, only that it would be *surprising* if it were. In short, any such intuition would seem to be *prima facie* neutral between E-Grounding and P-Grounding.

On the other hand, suppose that support for Grounding comes not from a pre-theoretical intuition but rather from philosophical reflection. If so, the question is what philosophical insight might lead us to favor E-Grounding over P-Grounding. Here is one answer: We might reflect on what it means for a truth to be grounded and so come to

understand Grounding in a way that favors its being read as E-Grounding. In particular, we might propose one or more reasonable *necessary conditions* on Grounding then ask whether, on presentism, these conditions are equally satisfied by E-Grounding and P-Grounding. Which conditions? I want to consider two candidates. Suppose that the grounding advocate claims that for truth to be grounded, it is necessary that true propositions are *anchored* to the world and that their truth values are *explained* by the world:

(Anchoring) Every true proposition is anchored to some of the world's entities or some part of the world's instantiation pattern.

(Explaining) Every true proposition can have its truth value explained by the world.

Does either candidate necessary conditions on Grounding give us a reason, on presentism, to favor E-Grounding over P-Grounding?

First, Anchoring. This principle involves an *existence-entailing* dependence between truth and world: For a truth to be anchored is for it to stand in a relation to some **existing** portion of the world. If so, Anchoring does not, on presentism, admit of a presentist-friendly disambiguation. That a truth might be anchored merely in virtue of some anchor's *having existed* makes little sense; if the anchor falls out of existence, the relevant truth(s) become unanchored, full stop. Ergo, if Anchoring is a plausible necessary condition on Grounding, then we have reason to think that Grounding requires E-Grounding.

But Anchoring is not a plausible necessary condition on Grounding. The reason for this involves negative existentials. On Anchoring, *that there are no unicorns* stands in a relation to some existing entity. The implausibility of this requirement is a familiar point against Truthmaker. But it is equally a point against thinking that Grounding requires Anchoring. For it seems overly strong to hold that Grounding *per se* requires *that there are no unicorns* to bear a relation to an existing portion of the world. In particular, the advocate of mere TSB (i.e. TSB without Truthmaker) is in no position to complain that, on presentism, some truths are unanchored. On mere TSB, *that there are no unicorns* is also unanchored, but presumably the advocate of mere TSB does not believe that negative existentials are thereby counterexamples to Grounding. In short, it is implausible that Anchoring is necessary for Grounding, for it is plausible that some truths are grounded yet unanchored. So Anchoring gives presentists no reason to accept E-Grounding.

Next, Explaining. Is Explaining a plausible necessary condition on Grounding? Suppose for the sake of argument that it is. Now observe that Explaining, unlike Anchoring, is ambiguous between a presentist-unfriendly and presentist-friendly version:

(E-Explaining) Every true proposition can have its truth value explained by how the world **is**.

(P-Explaining) Every true proposition can have its truth value explained by how the world was, is, or will be.

Given this ambiguity, the question here is whether the truth of Explaining requires the truth of E-Explaining. If it does, then Explaining—assuming it to be a necessary

condition on Grounding—also requires the truth of E-Grounding. But the truth of Explaining does not seem to require the truth of E-Explaining. For imagine that the grounding advocate makes the following demand: “Please explain why *that there were dinosaurs* is a true proposition. How is its truth value explained by the world?” Now suppose that the presentist responds: “Well, let me tell you how the world was some 100 million years ago: Dinosaurs existed. So that explains the truth of that proposition.” Should the grounding advocate be satisfied with this explanation? I see no reason why she should not be satisfied. True, if the presentist is a tensed-fact or ersatz-presentist, she can add a second piece of information: “Let me also tell you how the world **is**: Dinosaurs existed.” Surely this second piece of information is metaphysically interesting. Perhaps it supplements the first response in some explanatorily-relevant way. But does this second piece of information actually raise the presentist’s explanation from inadequacy to adequacy? It’s hard to see how it does. The grounding advocate demanded an explanation, in terms of the world, for the truth of *that there were dinosaurs*. And she got one: The world was such that dinosaurs existed. The grounding advocate could protest that when she asked for an explanation, in terms of the world, what she really wanted was an explanation in terms of how the world **is** and not merely one in terms of how the world was. But without some argument for why the former sort of explanation is necessary and the latter sort insufficient, this response just looks like question-begging in favor of E-Explaining. In short, it is plausible that, on presentism, the truth of Explaining does not

require the truth of E-Explaining. If so, Explaining gives presentists no reason to accept E-Grounding.

Perhaps the E-Grounding advocate objects that there is some *other* intuitively reasonable constraint on Grounding that favors E-Grounding over P-Grounding, one that I haven't considered. My challenge to those who think so is this: Articulate it. What would be nice to see here—if indeed P-Grounding is inadequate—is some proposed necessary condition on Grounding that is both, (a) genuinely *prima facie* necessary for Grounding, and (b) genuinely supportive of E-Grounding over P-Grounding. I offered two candidates: Anchoring and Explaining. The first fails (a) while the second fails (b).

I don't take any of the preceding considerations to be capable of actually *persuading* the eternalist.¹²⁰ After all, from the eternalist's epistemic position, E-Grounding and P-Grounding entail each other, and it makes little sense to talk about considerations that might favor one grounding principle over the other.¹²¹ From the eternalist's epistemic position, it therefore seems trivial that Grounding requires E-Grounding. But, of course, in giving the grounding argument we are not entitled to assume the eternalist's epistemic position; to do so is just to assume the truth of eternalism and so beg the question against the presentist. The challenge for the proponent of the grounding argument is to give some non-question begging reason—some reason

¹²⁰ In this respect, the P-Grounding presentist view is structurally different from the tensed-fact and ersatz presentist views. These latter views, if successful, may convince eternalists that presentists have the ontological resources to ground truth. My goal here is thus a modest one: It is to show how presentists may reasonably *resist* the grounding argument, not to show how presentists may bring eternalists over to their side.

¹²¹ Again, modulo truths about atemporal entities.

that does not assume the truth of eternalism—why Grounding requires E-Grounding. If the proponent is unable to do so, presentists are justified in resisting the grounding argument by rejecting orthodox TSB and Truthmaker and then adopting supervenience or truthmaking principles of their own. I now turn to a discussion of such principles.

3.4 Presentist Truthmaking and Supervenience

P-Grounding suggests presentist versions of Truthmaker and TSB:

(Note: ‘WAS’ and ‘WILL’ are tense operators: ‘WAS(P)’ is read ‘It was that P ’ and ‘WILL(P)’ is read ‘It will be that P ’.)

(Presentist Truthmaker) Necessarily, for any true proposition P :

- (i) If P is of the form WAS(Q), then WAS(there exists something T such that T 's existence necessitates the truth of Q).
- (ii) If P is of the form WILL(Q), then WILL(there exists something T such that T 's existence necessitates the truth of Q).
- (iii) Otherwise, there exists something T such that T 's existence necessitates the truth of P .

(Presentist TSB) For any worlds W_1 and W_2 , let ψ be the proposition that something exists in one world but not the other, or else some object instantiates a property or a relation in one world but not the other. For any proposition P , if P is true in W_1 but not W_2 , then ψ or WAS(ψ) or WILL(ψ).¹²²

These principles have a similar *prima facie* plausibility for the presentist as Truthmaker and TSB have for the eternalist; they are each precisifications of P-Grounding, just as Truthmaker and TSB are precisifications of E-Grounding. It is key that, in defending either principle, the presentist can hold that the truth of a proposition can depend on how

¹²² Note that WAS(ψ) is to be read as equivalent to the proposition *that something existed in one world but not the other or else some object instantiated a property or a relation in one world but not the other*. And *mutatis mutandis* for WILL(ψ). In other words, Presentist TSB is to be read as saying that the truths supervene on what did, does, and will exist, plus the instantiation pattern that did, does, and will hold.

the world was or will be—and so to things that were or will be—without thereby being ontologically committed to merely past or future things. Presentist Truthmaker and Presentist TSB are formulated in presentist-friendly terms precisely to avoid unwanted ontological commitments. On Presentist Truthmaker, *that there were dinosaurs* depends on past dinosaurs in the following sense: *That there were dinosaurs* is true just in case *that there are dinosaurs* had a truthmaker. But the presentist's admission here—that *that there are dinosaurs* had a truthmaker—entails nothing about what **exists**. And on Presentist TSB, *that there were dinosaurs* depends on past dinosaurs in the following sense: No worlds differ in whether *that there were dinosaurs* is true without also differing in whether dinosaurs existed. But the presentist's admission here—that *that there were dinosaurs* supervenes on what existed—entails nothing about what **exists**.

Presentist Truthmaker runs into trouble with cross-temporal truths, truths that are about more than one time. Consider:

(4) *That Elvis was taller than Napoleon was.*

An eternalist may plausibly claim that (4) is grounded by the cross-temporal state of affairs *Elvis's being taller than Napoleon*, an entity that has Elvis, Napoleon, and the *taller than* property as constituents. But on presentism, there was never a time when that state of affairs existed, as Elvis and Napoleon never temporally overlapped. Since, on presentism, *that Elvis was taller than Napoleon was* (or its present-tense analog) never had a truthmaker at any single past time, Presentist Truthmaker fails as stated.

I think that the presentist can modify her truthmaking principle to deal with such truths. She should start from the observation that two truths are already grounded on P-Grounding, namely:

(5) *That Elvis was 72 inches tall.*

(6) *That Napoleon was 67 inches tall.*

I think it plausible, within the spirit of P-Grounding, for the presentist to hold that since (5) and (6) are grounded, (4) is also grounded since (4) is just a consequence of (5) and (6).^{123,124} The presentist could therefore adopt the principle that being grounded is closed under entailment:

(Entailment) If there are some Q_1, \dots, Q_n and a P such that Q_1, \dots, Q_n are grounded and $Q_1, \dots, Q_n \rightarrow P$, then P is grounded.

A bit of caution here. Are necessary truths grounded? On the classical picture of entailment, every necessary truth is entailed by every truth, and so Entailment plus the existence of at least one grounded truth ensures that every necessary truth counts as

¹²³ Need we add as a premise *that if Elvis was 72 inches tall and Napoleon was 67 inches tall, then Elvis was taller than Napoleon was?* Not if we assume a classical picture of entailment on which Q entails P just in case $\neg \diamond(Q \ \& \ \neg P)$. On classical entailment, we needn't list necessary truths as premises.

¹²⁴ Even supposing that the entailment strategy is plausible, another objection to the presentist's treatment of (4) lurks. Namely: If *that Elvis was taller than Napoleon was* is true, then Elvis must have once stood in the *taller than* relation to Napoleon. So presentists face a dilemma: Either implausibly say that this proposition is false or else implausibly say that the existing Elvis once stood in a relation to the non-existent Napoleon. Two observations. First, the dilemma is not obviously a grounding worry, for it never calls into question presentists' ability to give (4) a truthmaker. Second, the worry seems to confront all presentists (including tensed-fact and ersatz presentists), not just those who accept my view of grounding. For discussions of how presentists might treat cross-temporal truths, see Crisp (2005), Davidson (2003), and De Clercq (2006).

grounded.¹²⁵ For those who hold that necessary truths are ungrounded (and no worse for it), a modification is needed:

(Entailment*) If there are some Q_1, \dots, Q_n and a P such that Q_1, \dots, Q_n are grounded, P is contingent, and $Q_1, \dots, Q_n \rightarrow P$, then P is grounded.

The modified entailment principle avoids the untoward result that necessary truths are grounded, yet it retains the welcome result that a contingent truth can be grounded in virtue of being entailed by some number of grounded truths. So long as Grounding is construed as P-Grounding, Entailment* looks plausible. For *That Elvis was taller than Napoleon was* is fully dependent upon (and explicable in terms of) the truths that jointly entail it, and the truths that jointly entail it are themselves grounded by how the world was. The presentist's truthmaking principle could then be amended as follows:

(Presentist Truthmaker) Necessarily, for any true proposition P , P is grounded according to the *recursive truthmaker rule*, RTR.

(RTR) For any proposition P :

- (i) P is grounded if there exists some T such that T 's existence necessitates the truth of P .
- (ii) If P is of the form $\text{WAS}(Q)$, then P is grounded if $\text{WAS}(Q)$ is grounded according to RTR).
- (iii) If P is of the form $\text{WILL}(Q)$, then P is grounded if $\text{WILL}(Q)$ is grounded according to RTR).
- (iv) P is grounded if there are some Q_1, \dots, Q_n such that $Q_1, \dots, Q_n \rightarrow P$, P is contingent, and Q_1, \dots, Q_n are grounded according to RTR.

¹²⁵ See Armstrong (2003), Restall (1996), and Rodriguez-Pereyra (2006) on the relationship between entailment and truthmaking. Armstrong defends, and Rodriguez-Pereyra attacks, the notion that truthmaking is closed under entailment: If T is a truthmaker for P and $P \rightarrow Q$, then T is a truthmaker for Q . But note that Entailment and Entailment* are distinct from this stronger entailment principle; grounding may be closed under entailment even if truthmaking is not.

RTR tells us whether a proposition is grounded.¹²⁶ It says, of every proposition P , that P has a truthmaker, or that the embedded proposition within P is grounded on RTR, or that P follows from some propositions that are grounded on RTR. If a proposition is grounded on RTR, call it *truthmaker grounded*. While not every truth has a truthmaker on Presentist Truthmaker, every truth is truthmaker grounded. Whether the presentist opts for Presentist Truthmaker or Presentist TSB alone depends (in part) on whether she thinks the familiar objections concerning necessary truths and negative existentials can be met. But both options are consistent with Grounding, as both are consistent with P-Grounding.

3.5 Grounding and Modal Truths

Before concluding by considering objections, I want to briefly consider whether there is an analogous grounding argument in the modal case. Recall that actualism—the view that only actual things exist—is the modal analog of presentism. In contrast, possibilism—the view that merely possible things exist—is the modal analog of eternalism. The purpose here is to determine whether Grounding has modal implications, and, in particular, whether it has anti-actualist implications. We might initially suspect that just as Grounding generates an anti-presentist argument in the case of past-tense truths, it may

¹²⁶ Note that clause (i) ensures that every necessary truth counts as grounded, for, trivially, anything whatsoever necessitates the truth of a necessary truth. Was Entailment* then all for naught? No. This is just the necessary truths problem of Truthmaker—viz. anything whatsoever counts as a truthmaker for any necessary truth—coming to bite Presentist Truthmaker under a slightly different guise. I'll leave it to the truthmaker theorist to solve (or explain away) the problems with necessary truths (and negative existentials), and I'll assume that a proposed solution that modifies Truthmaker can be imported to Presentist Truthmaker.

generate a parallel anti-actualist argument in the case of modal truths. For while the possibilist believes in a profusion of merely possible entities that might serve as truth grounds for modal claims, the actualist does not.

Consider the plausible modal truths *that water is necessarily H₂O* and *that there could have been purple sheep*. What parts of reality fix the truth of these propositions and explain, in a metaphysical sense, why they are true? That is, what grounds their truth? From a certain perspective, it is tempting to answer that nothing whatsoever grounds them. For these propositions are necessary truths; they hold in all possible worlds.¹²⁷ We might therefore think that modal truths simply do not *require* a truth ground; since they are true at every possible world, nothing is needed to *make* them true.

From another perspective, this answer is wanting. Necessary truths, like all truths, describe reality. But then what parts of reality ensure that they succeed in describing rather than misdescribing? What explains—*metaphysically explains*—why these claims succeed rather than fail? If the answer is that nothing ensures or explains their success, then, from a certain perspective, their truth may begin to look mysterious.

Rather than attempt to settle the issue of whether modal truths need grounding, it will be fruitful to suppose that they do, then see whether anything interesting follows. In particular, it will be fruitful to treat Grounding as maximal—assume that it covers

¹²⁷ This assumes that the modal logic S5 describes genuine metaphysical possibility and necessity. On S5, every world is accessible to every world, and so the same truths are possible and necessary relative to every world. Thus, given *that there could have been purple sheep* is true, it is true at every possible world. And given *that water is necessarily H₂O* is true, it too is true at every world.

necessary and contingent truths alike—then see whether it can be used to generate an anti-actualist argument.

Whether such an argument is forthcoming depends, presumably, on which precisifications of Grounding we are prepared to accept. We distinguished between weaker and stronger precisifications, TSB and Truthmaker, respectively. Recall:

(TSB) For any proposition P and any worlds W_1 and W_2 , if P is true in W_1 but not W_2 , then either something exists in one world but not the other, or else some object instantiates a property or a relation in one world but not the other.

Since TSB is a transworld principle, *that water is necessarily H₂O* and *that there could have been purple sheep* do not stand at odds with it. For no words whatsoever differ among their necessary truths. Therefore, these modal truths are TSB-kosher regardless of what exists. This suggests that if there is to be a grounding argument against actualism, it must be one that employs a stronger principle than TSB. It also suggests that if the strongest true grounding principle is one that genuinely vindicates—i.e. allows an explanation of—the grounding of modal truths, then TSB is not the strongest true grounding principle.

What about Truthmaker? Recall:

(Truthmaker) Necessarily, for any true proposition P , there exists something T such that T 's existence necessitates the truth of P .

Here too it is initially tempting to think that modal truths are safe from any grounding worry. For consider a natural proposal concerning what it means to say that T necessitates the truth of P :

(Simple Necessitation) T necessitates P just in case, necessarily, T exists only if P is true.

If Simple Necessitation holds, then anything whatsoever counts as a truthmaker for any necessary truth: Since P , if necessary, is true in all worlds, then nothing whatsoever exists while P is false. On this conception of necessitation, e.g., my pencil necessitates the truth of (is a truthmaker for) the claim *that water is necessarily H₂O*. Those who take truthmaker theory seriously may take this to show that the current conception fails: whatever truthmaker theorists mean by ' T necessitates P ', it must be something more metaphysically-demanding than Simple Necessitation. When an entity stands in the truthmaking relation to a proposition, that entity must metaphysically ground its truth in some genuine, nontrivial sense. It must be, we might say, *in virtue of the truthmaker* that the given proposition is true:

(Virtue Necessitation) T necessitates P just in case, necessarily, if T exists, then P is true in virtue of T .

This stronger necessitation principle explains why my pencil is not a truthmaker for the claim *that water is necessarily H₂O*: it is not in virtue of my pencil that Water is necessarily H₂O. How should we understand the idea of *truth in virtue of a truthmaker*? This is a crucial question for truthmaker theorists. For present purposes, we should assume that truthmaker theorists will have either an answer to offer or a reason why taking the notion as primitive is unproblematic.

Adopting Truthmaker and Virtue Necessitation allows us, it seems, to get an anti-actualist argument up and running. For on actualism, what exists is limited to the actual.

Yet many truths extend *beyond* the actual, e.g. the truth *that there could have been a purple sheep*. Moreover, if every true proposition requires a truthmaker in virtue of which that proposition is true, it is far from clear which truthmakers actualists will have to offer for modal claims. The possibilist can happily say that there are an abundance of existing, merely possible purple sheep, each of which is a truthmaker for the claim *that there could have been a purple sheep*. But this avenue is closed to actualists. The grounding argument against actualism might then proceed as follows:

- (P1) Every true proposition, *P*, has a truthmaker in virtue of which *P* is true.
- (P2) *That there could have been purple sheep* is true.
- (P3) *That there could have been purple sheep* has a truthmaker in virtue of which it is true. (From P1, P2.)
- (P4) If actualism is true, then *that there could have been purple sheep* lacks such a truthmaker.
- (C) Actualism is not true. (From P3, P4.)

Actualists, like presentists, are free to claim that Truthmaker or Virtue Necessitation fails and hence that the preceding argument is unsound since (P1) is false. What specific grounds might actualists have for denying (P1)? I propose that actualists are justified in rejecting (P1) for reasons analogous to why presentists are justified in rejecting it: It is far from clear that we have a non-question-begging reason—a reason that does not assume the truth of possibilism—to believe that Grounding itself requires a strong version of Truthmaker that extends to modal truths. Note that Grounding is ambiguous, for the actualist, between two readings:

- (M-Grounding) Every true proposition depends for its truth on how reality **is**.

(A-Grounding) Every true proposition depends for its truth on how reality **is** or might be or must be.

Possibilists may endorse M-Grounding without reluctance; by their lights, reality broadly speaking includes truthmakers for claims about how things might have or must have been.

But actualists should be reluctant to endorse M-Grounding. If what exists is limited to the actual, then why think that the whole of being includes truthmakers for claims concerning how things might or must have been, claims that obviously extend beyond the actual? Note that on possibilism, M-Grounding entails A-Grounding and vice versa; on possibilism, how reality **is** includes how reality might and must be. Thus, from the possibilist's epistemic position, there is no question of these principles differing in truth value. But of course, in giving an anti-actualist argument, we are not entitled to assume the possibilist's epistemic position. If we rather adopt a neutral view of modal ontology—if we leave open the question of whether actualism or possibilism is true—then, e.g., *that purple sheep might have existed* stands as a potential but conspicuous counterexample to M-Grounding.

To summarize, the prospects for an anti-actualist grounding argument are even from the start noticeably weaker than those for an anti-presentist argument. Since standard versions of TSB and Truthmaker do not stand at odds with modal truths, an anti-actualist argument requires a stronger precisification of Grounding—e.g. one based on the principle of Virtue Necessitation. With a stronger grounding principle, a valid anti-actualist argument appears on the scene. Actualists who are confronted with this

argument may respond in a way analogous to how presentists may respond to the temporal grounding argument, viz. by distinguishing actualist-friendly and actualist-unfriendly readings of the grounding principle.

Finally, I close by considering some objections.

3.6 Objections

Objection: Dependence is a relation. Therefore, if the presentist holds that a proposition depends for its truth on a merely past thing, she posits a mysterious dependence relation between an existing proposition and a non-existent past thing.

Reply: Dependence need not be construed as a relation, and so the P-Grounding presentist need not posit relations between existing things and nonexistent things. First, take Presentist TSB. *That there are no unicorns* supervenes (and so depends) on what exists, but it doesn't follow that this proposition stands in a relation to something. Similarly, *that there were dinosaurs* supervenes (and so depends) on what did exist, but it doesn't follow that this proposition stands in a relation to something. Though supervenience is a notion of dependence between truth and world, it is not one that requires relations between truth-bearers and entities. Next, take Presentist Truthmaker. While truthmaking, unlike supervenience, involves a special relation between truthmakers and truth-bearers, Presentist Truthmaker only requires this relation to hold at times when the relata exist. On Presentist Truthmaker, when the last dinosaur went out of existence, the truthmaking relation ceased to hold between it and *that was a dinosaur*.

But it was then true that this relation *had held*, and this is sufficient for our treating *that there was a dinosaur* as grounded on Presentist Truthmaker.

Objection: If the truth of *that there were dinosaurs* depends on some merely past dinosaurs, then we may infer that some merely past dinosaurs are such that the truth of *that there were dinosaurs* depends on them. But this amounts to quantification over merely past entities, a direct contradiction of presentism.

Reply: On P-Grounding presentism, truth's dependence on being involves no more than the truth of Presentist TSB or Presentist Truthmaker, both of which are formulated with the presentist's opaque tense operators. When the presentist claims that the truth of *that there were dinosaurs* depends on some past dinosaurs, we cannot infer that something is such that the truth of *that there were dinosaurs* depends on it. Call a statement of the form *A depends on B* where it is illegitimate to quantify into the latter position a statement of *opaque dependence*. The P-Grounding presentist construes the dependence of truth on its ground as opaque when it involves a past- or future-tense truth.

Objection: What exactly *is* this thing you call "opaque dependence"? It sounds suspicious.

Reply: The presentist already helps herself to tense operators—WAS and WILL—that are ontologically non-committing. Why is the claim that dependence is sometimes opaque any *more* suspicious than the claim that truth is sometimes opaque? The opacity of truth's dependence on the past and future is arguably to be expected given the opacity

of past- and future-tense truth. Indeed, the former issues simply from Presentist TSB and Presentist Truthmaker's formulation using tense operators. So long as the introduction of opacity via tense operators is unobjectionable, the opacity of dependence should be too.

Objection: Supervenience itself is a relation—hence, it is usually called “the supervenience relation”—between a proposition and a supervenience base. In the case of TSB, supervenience is cast as a relation between a proposition and the world as a whole. To hold that *that there are no unicorns* supervenes on being is to hold that, even in the absence of unicorns, this proposition stands in a relation to the world as a whole. But, on the P-Grounding proposal, *that dinosaurs existed* does not stand in any explanatory or metaphysically-meaningful relation to the world as a whole, for, by presentist lights, the world as a whole contains no dinosaurs.

So, we are left with an unanswered question, or with a question whose answer is unclear, viz. what sits at the other end of the presentist's supervenience relation? That is, what is the *supervenience base* for *that dinosaurs existed*? It seems that there are three options: (i) Past being—i.e. how the world *was* as a whole; (ii) Some kind of ersatz entity; (iii) Nothing at all. Given presentism's eschewal of past being—how the world *is* as a whole does not include how it *was* as a whole—option (i) seems to be, for the presentist, a kind of suspicious meinongianism. Eternalists, by contrast, have no trouble saying that some chunk of past being is the supervenience base for *that dinosaurs existed*. But for the presentist to say this amounts to the claim that supervenience bases can include such shadowy non-entities as things that existed but do not **exist**. Option (ii) is

not pursued, by the current proposal, as a candidate answer to the grounding problem.

And option (iii) seems to be a concession that presentists have no truth ground to offer for past-tense claims, i.e. on this option, many tensed claims simply lack a supervenience base altogether. In short, negative existentials such as *that there are no unicorns* are not a good guide to the grounding problem for presentism, and it is mysterious what the supervenience base is for *that dinosaurs existed*.

Reply: I earlier claimed that dependence need not be construed as a relation. But supervenience—which is a kind of dependence—need not be construed relationally either. Of course, supervenience *can* be construed relationally, but the point here is that it need not be. If supervenience is not a relation, what is it? My answer: It is a kind of covariation. Or more precisely: It is a kind of modal covariation—viz. covariation between what is true at a world and the ontology and ideology of that world.¹²⁸

Eternalists can say that truth-world supervenience is covariation between, on the one hand, what is true, and on the other, what **exists** and the tenseless instantiation pattern of properties and relations. My proposal is that, analogously, presentists can say that truth-world supervenience is covariation between, on the one hand, what is true, and on the other, what existed, exists, and will exist, plus the past, present, and future instantiation patterns. Both TSB and P-TSB are supervenience principles for a simple reason: they are both principles governing how truth covaries with ontology and ideology. And both

¹²⁸ Of course, I here use “the ontology and ideology of a world” liberally to potentially include the ontology and ideology that a world had or will have.

principles agree that the truth of *that there were no dinosaurs* covaries with the past existence of dinosaurs.

Moreover, it is not at all clear what is *gained*, in the case of grounding, by construing supervenience as a genuine relation between truth and world rather than as mere covariation between them. To motivate my answer to the grounding objection, I drew a parallel between the truth-world dependence of *that dinosaurs existed* and *that there are no unicorns*. The current objection claims that the negative existentials such as the latter are naturally understood as standing in a supervenience *relation* to the world as a whole. But why? Presumably, to metaphysically account for the truth of such negative existentials. Yet it is hard to see what advantage a genuine supervenience relation gives us here beyond what we already had with a non-relational, mere covariation principle. For suppose that the supervenience of *that there are no unicorns* is to be understood as a genuine truth-world relation. How does the fact that this proposition stands in a relation to the world metaphysically account for its truth? Answer: it doesn't. The world, *on its own*, does not metaphysically account for the truth of *that there are no unicorns*. For the world to account for its truth, we should need to add something else, viz. a fact that states that, whatever the world contains, that is *all* that it contains—i.e. a “that’s all” fact. Absent such a “that’s all” fact, the world on its own does not ground, in any meaningful sense, *that there are no unicorns*. Of course, the problem of providing grounds for negative existentials is precisely one of the metaphysical nettles that motivates the retreat from Truthmaker to TSB. But once we drop the need for Truthmaker and precisify

Grounding as TSB, the need for any such “that’s all” fact disappears. Understanding TSB as mere covariation, we can show that *that there are no unicorns* depends on the world in the following minimal sense: no worlds differ among their truths without also differing among ontology or ideology. But if so, then where is the need to treat supervenience as a genuine relation? How does a genuine truth-world relation illuminate grounding in a way that mere truth-world covariation does not?

To summarize, recall the original question posed in the objection: What is the supervenience base, on P-Grounding, for *that dinosaurs existed*? Answer: It depends on what you mean by “supervenience base”. If by “supervenience base” you mean the thing that the truth of *that dinosaurs existed* opaquely depends upon—i.e. the thing this proposition covaries with—then the answer is: past being, viz. what existed. For when it comes to a supervenience base that a proposition opaquely depends upon, we need not assume that the base exists. But if by “supervenience base” you mean the existing thing to which *that dinosaurs existed* stands in a genuine relation, then the answer is: there isn’t one.

Objection: On Presentist Truthmaker, *that there were dinosaurs* need not have a truthmaker so long as *that there are dinosaurs* had a truthmaker. But what entitles the presentist to hold that any proposition had a truthmaker? Nothing in her ontology *grounds* the claim that there used to be any truthmakers.

Reply: True, the adopter of Presentist Truthmaker accepts the following claim:

(7) *That (that there are dinosaurs) had a truthmaker.*

But the claim that (7) *itself* requires a truthmaker is ambiguous. Must the presentist say that (7) has a truthmaker? Or need she merely say that its present-tense analog—*That (that there are dinosaurs) has a truthmaker*—had a truthmaker? While Truthmaker requires the former, Presentist Truthmaker merely requires the latter. The claim that the presentist is unentitled to hold that any proposition had a truthmaker rests on wrongly holding her to E-Grounding.

Objection: The presentist has only shown that the truth of (7) is *consistent* with Presentist Truthmaker. But consistency is not enough. The presentist is charged to explain how truths about the past are grounded. She cannot, in meeting the charge, make further assertions about how things were in the past, for such assertions *also* require grounding and making them would simply lead to a truthmaker regress.

Reply: Any such regress is not unique to Presentist Truthmaker. Consider:

(8) *That there are aardvarks*

All truthmaker theorists—whether they accept Truthmaker, Presentist Truthmaker, or some other truthmaker rule—presumably say that (8) has a truthmaker, that *that (8) has a truthmaker* has a truthmaker, and so on. But this regress poses no threat to the presentist that wasn't already there for the non-presentist. Since the regress involved in (7) is in principle no different from that involved in (8), any claim that the regress involved in (7) is vicious should be treated as troublesome for truthmaker theorists broadly and not just presentists.

Objection: You've chosen a convenient example in discussing Presentist Truthmaker:

That Elvis was taller than Napoleon was is entailed by other grounded propositions because it involves an *internal relation*, i.e. one fixed by the intrinsic character of the relata. But there are lurking counterexamples to Presentist Truthmaker. Consider:

(9) *That the assassination of the Archduke Ferdinand caused World War I.*

(10) *That the birth of Napoleon preceeded the birth of Elvis.*

These truths are usually taken (by the eternalist, anyway) to involve external, cross-temporal relations. For that reason, these truths are problematic for Presentist Truthmaker, since it's not obvious how they are entailed by some propositions, each of which is grounded on Presentist Truthmaker.

Reply: Two observations. First, it is not merely the external character of these truths that is problematic from the perspective of Presentist Truthmaker. For on Presentist Truthmaker, a grounded truth includes one entailed by *any* set of grounded propositions; the contingent propositions in the set needn't be restricted to ones concerning the intrinsic character of the subjects of the cross-temporal proposition. E.g. In grounding *that the birth of Napoleon preceeded the birth of Elvis*, the entailing propositions needn't be restricted to ones concerning the intrinsic characters of Elvis's birth and Napoleons's birth. Put differently, what matters for Presentist Truthmaker is that all truths be fixed by some number of past, present, or future instantaneous states of the world. If a truth fails to supervene on the intrinsic character of all the world's past, present, and future instantaneous states, call that truth *globally external*. For Presentist Truthmaker to

succeed, there cannot be any globally external truths. But there can still be *locally external* truths, truths not fixed by the intrinsic characters of the subjects of those truths but which are fixed by the intrinsic characters of some number of past, present, or future instantaneous world states.

Second, the presentist already faces a separate (non-truthmaker) problem of offering a presentist-friendly account of causal and temporal relations. The question for the presentist *qua truthmaker theorist* is not whether (9) and (10) are consistent with Presentist Truthmaker on any old view of causal and temporal relations but rather whether they are consistent with it on presentist-friendly views of casual and temporal relations.¹²⁹

I previously addressed, briefly in §1.5, the prospects for presentist-friendly views of causation. Although I do not wish to offer a detailed defense of a presentist view of causation, let me now suggest that I find Huemer and Kovitz's (2003) view whereby causal relations hold between simultaneous events to be especially promising for presentism. Huemer and Kovitz claim that a simultaneous view of causation follows from two assumptions: (a) the claim that action at a temporal distance is impossible, and (b) the claim that time is mathematically continuous. Since these are plausible assumptions, the claim is that a simultaneous view of causation—one where causes are simultaneous with their direct effects—is plausible as well.

¹²⁹ Perhaps there are no good presentist-friendly accounts of casual and temporal relations. If so, presentism is unattractive, and there is little point in answering the grounding argument. For discussion of presentist-friendly views of causation (and cross-temporal relations broadly), see Crisp (2005), Davidson (2003), and De Clercq (2006).

On this sort of view, a truth such as *that pushing down on the see-saw caused the other end to lift* involves the casual relation's holding between simultaneous pushing and lifting events. On the simultaneous view, many causal truths—truths involving the direct effect of some cause¹³⁰—will turn out to be uni-temporal rather than cross-temporal, and the presentist will face no special difficulty in grounding them. Of course, causal truths are not limited to cases of direct effects. *That the assassination of the Archduke caused WWI* is a truth that relates some cause to one of its temporally non-overlapping indirect effects. Here, the defender of the simultaneous view may hold that cases of indirect effects—cases without temporal overlap between cause and effect—are reducible to a series of instances of direct causes and effects, cases where causes are simultaneous with their effects. Thus, *that the assassination of the Archduke caused WWI* is only true if there was a series of overlapping causes and effects leading from the assassination to the war. Taking these ideas on board, the presentist can treat each uni-temporal casual truth as grounded on Presentist Truthmaker, and she can treat *that the assassination of the Archduke caused WWI* as reducible to (and hence as entailed by) some number of grounded uni-temporal causal truths.

Next, temporal relations. The presentist might offer the following pair of truths:

(11) *That Napoleon was born in 1769 and Elvis was born in 1935.*

(12) *That if Napoleon was born in 1769 and Elvis was born in 1935, then the birth of Napoleon preceded the birth of Elvis.*

¹³⁰ By “direct effect”, I mean the effect of a cause such that no other effect is intermediate between that cause and that effect.

That the birth of Napoleon preceded the birth of Elvis follows from the pair if (12) is contingent; otherwise, it follows from (11) alone. Is (12) true contingently or necessarily, and if it's contingent, what grounds it? The answer depends on our account of times.

Eternalists might, for example, think of a time as a maximal slice of the world.

(Intuitively, on eternalism, an instant is just a three-dimensional slice of a four-dimensional world; the four-dimensional world itself is an arrangement of all its instants.)

The eternalist can thereby say that (12) is true in virtue of 1769's standing in the external relation of *being 166 years prior* to 1935. But it is contingent that 1769 preceded 1935, for it is contingent that the world slice that we call '1769' preceded the world slice that we call '1935'.¹³¹

The presentist cannot believe that concrete world-slices stand in cross-temporal relations—doing so would commit her to non-present things—therefore her account of times will likely differ from the eternalist's.^{132,133} How should the presentist understand times? Here is one option. Just as ordinary objects instantiate an age property, the

¹³¹ Thought experiment: Imagine a world whose history is an exact mirror-image of our own, i.e. the election of Obama precedes the re-election of George W. Bush by four years, World War I precedes the assassination of Franz Ferdinand, and so on. In such a world do we wish to say, e.g., that 1942 precedes 1935 by seven years? Our inclination to say 'yes' seems to lend credence to the idea that times are maximal world-slices; our inclination to say 'no' seems to lend credence to the idea that they are not.

¹³² This plausibly assumes that the earlier than relation is existence-entailing: Necessarily, if *a* is earlier than *b*, then *a* and *b* both exist.

¹³³ Presentists cannot believe that concrete things stand in cross-temporal relations, but perhaps they can believe that abstract things do (or, rather, that abstract things stand in a relation analogous to a temporal relation). Bourne (2006) and Crisp (2007) counsel presentists to treat times as abstract objects (i.e. "ersatz times").

presentist might think of the universe itself as instantiating an age property.¹³⁴ She might treat this property itself—rather than the state of the world as a whole—as a time. On this view, ‘2011’ names a property that the universe now instantiates, a property giving the universe’s age. Say then that when Napoleon was born the universe had the property of being m years old, and when Elvis was born the universe had the property of being $m + 166$ years old. These ages are sufficient to ground the truth of (12), for they’re sufficient to ground the truth *that the universe was 166 years older in 1935 than it was in 1769*. I am not sure whether, ultimately, this view of times is plausible. But it’s an option for the presentist, one consistent with Presentist Truthmaker. If, however, it turns out that either of the most plausible presentist-friendly views of causal and temporal relations are incompatible with Presentist Truthmaker, the presentist should retreat to Presentist TSB.

¹³⁴ For the universe to instantiate a property, the contents of the universe must (on standard views of property instantiation) compose a single object denoted by ‘the universe’. Do they? It seems to be a feature of ordinary language that we often treat ‘the universe’ as picking out a single, maximal object. And notice that we need not believe in unrestricted mereological composition in order to think that the contents of the universe compose a maximal object; rather, we simply need a principled reason to think that they compose such an object. Cameron (2008) makes this latter point.

Chapter 4. Presentism and Singular Truths

That Socrates was a philosopher is true. But this proposition seems to be true because it says something true about Socrates, the man himself—viz. that he was a philosopher.

Yet, according to presentism, there is no longer any such thing as Socrates. And so it is mysterious how, on presentism, *that Socrates was a philosopher* could say anything true about Socrates. And it is equally mysterious how, in uttering the sentence “Socrates was a philosopher”, *I myself* am able to say anything true about Socrates. For how can I say something true about a specific individual, when the individual in question does not exist? Call this *the problem of singularity* for presentism.¹³⁵ The goal of this chapter will be, in §4.1, to clearly demarcate three versions of this problem and, next, in §4.2-4.4, to explore solutions to each one.

4.1 Three Problems of Singularity

The problem of singularity can perhaps be most generally expressed as follow: how is it possible, on presentism, that we can *refer to*, *talk about*, or *think about* a single, specific, merely past—and hence, nonexistent—individual such as Socrates? This general problem encapsulates, I think, at least three distinct semantic problems for presentism: one concerning proper names, one concerning singular predications, and one concerning

¹³⁵ Can we predicate of merely future individuals as well? E.g. Suppose that I decide to call my merely future grand-daughter by the name ‘Caroline’. Can I truly predicate of her by asserting *that Caroline will be tall?* Such cases carry less intuitive force, I think, than cases of merely past individuals. For this reason, I choose to focus on cases of merely past individuals throughout. But this narrower focus is not likely to pose much problem, I think, on the plausible assumption that any presentist solution to the problem of singularity will be symmetric with the respect to the past and future.

singular propositions. To clearly understand the challenges that presentism faces with respect to singularity, I lay out each in turn.

The first worry is this: It seems to be a kind of trivial, a priori truth that all names refer to their bearers. ‘Obama’ refers to Obama, ‘Buckethead’ to Buckethead, ‘Socrates’ to Socrates. And moreover, it seems to be a kind of trivial, a priori truth about reference that in order to refer to some individual—in order to successfully stand in the *reference* relation to an individual—the individual in question must exist.¹³⁶ Yet, according to presentism, the name of any merely past individual—e.g. ‘Socrates’—has nothing to serve as referent. Therefore, presentism seems to run into conflict with a basic truth about names. We shall call this *the problem of proper names*.

The second worry is this: whereas it seems quite intuitive that in uttering “Socrates was a philosopher” I thereby predicate something *of Socrates*—viz. having been a philosopher—there is, on presentism, no Socrates of whom to predicate. Call this second worry *the problem of singular predication*. But this worry goes even deeper, I think, than the mere intuitive cost of denying that there is no Socrates of whom to predicate things. For, even beyond the intuition that we sometimes predicate things of past individuals (e.g. Socrates), there should be an even stronger intuition that various propositions concerning merely past individuals (e.g. *that Socrates was a philosopher*) are true. It seems, in other words, even worse to deny *that Socrates was a philosopher* is

¹³⁶ This assumes the falsity of a Meinongian view whereby there are non-existent individuals to which we can refer and over which we can quantify. Absent such a view, expressions of the form *A refers to B* seem paradigmatically existence-entailing with respect to *B*.

true than it does to merely say that we cannot predicate of Socrates. But there is an argument to be made that so long as there is no Socrates of whom to predicate, then there can be no singular truths involving him:

(P1) *That Socrates was a philosopher* can be true only if Socrates exists.

(P2) On presentism, Socrates does not exist.

(C) On presentism, *that Socrates was a philosopher* cannot be true.

(P1) is the controversial premise here. And (P1) may be supported by the idea that singular predication carries ontological commitment to the object of predication. We might express this idea by *The Commitment Principle*:

(Commitment) $\Box[\forall p\forall x\forall F (p \text{ predicates } F \text{ of } x \rightarrow \Box[p \rightarrow \exists y(y = x)])]$.¹³⁷

Commitment seems a plausible principle. For consider the claim—assume it to be true—*that Jane is a philosopher*. This claim is predicative of Jane. But if so, they by affirming the antecedent of Commitment, we see *that Jane is a philosopher* could only be true if Jane existed. And this is quite plausible. For, could it be true *that Jane is a philosopher* if Jane failed to exist? It seems dubious that it could. Given Commitment, whenever a sentence or proposition, *P*, truly predicates a property, *F*, of some individual, it must be that the individual in question exists. But given Commitment, (P1) looks solid. For *that Socrates was a philosopher* seems clearly to be a predicative truth. And which object is the target of this predication? A natural answer: Socrates. In short, the idea that the truth of *that Socrates was a philosopher* requires the existence of Socrates follows simply from

¹³⁷ From Crisp (2003)

the plausible idea that this truth is predicative of none other than Socrates himself, together with Commitment.

There is yet another way of putting the problem of singular predication, one that subsumes it under a more general problem for presentists. We see this by noting that true predications seem to commit us to the existence of a relation between a *predicator* (e.g. the proposition *that Socrates was a philosopher* or the sentence “Socrates was a philosopher” or, perhaps, the person who utters this sentence) and an *object* (e.g. Socrates). Call this *The Relation Principle*:

(Relation) $\Box[\forall p\forall x\forall F (p \text{ predicates } F \text{ of } x \rightarrow \Box[p \rightarrow \exists R(Rpx)])]$.¹³⁸

Relation is a plausible principle. If Jane (or some sentence that Jane utters) predicates *F* of John, it seems trivial that Jane (or perhaps the sentence she uttered or proposition she expressed) stands in a relation to John. And if Relation holds, then the problem of predication can be subsumed under the more general problem of cross-time relations: there seem to be various relations that hold between present and non-present things—e.g. casual relations, the *taller than* relation, and (in the present case) the predication relation—yet the existence of these relations carries ontological commitment to the non-present relata, a consequence at odds with presentism.

These three sub-parts of the problem of singular predication can be put together as follows: In the case of singular truths concerning merely past individuals—e.g. *that Socrates was a philosopher*—it seems intuitive that such truths are predicative of the

¹³⁸ Ibid.

individuals they are about, an intuition at odds with presentism's eschewal of merely past individuals. Moreover—and worse still for presentism—it seems that the very truth of such propositions requires both the existence of the individuals they concern as well as a genuine predication relation that holds between those individuals and some predicates.

Finally, we arrive at the third worry concerning singularity. One standard and initially attractive view in contemporary philosophy of language is that a sentence expressing a singular truth expresses a *singular proposition*, a proposition that literally has, as a direct constituent, the individual that it singularly concerns.¹³⁹ Consider, for instance, the sentence “Obama is president”. According to the standard view I have in mind here, this sentence expresses a singular proposition that may be depicted with brackets, as follows: <Obama, *being president*>. According to this depiction, the singular proposition *that Obama is president* has two constituents: Obama (the literal man himself) and the property *being president*. And it is just in virtue of having Obama himself as a constituent, so the story goes, that this singular proposition is singularly about Obama.

But this picture raises trouble for presentism. For it is mysterious how there can be, on presentism, past-directed singular propositions at all. In asserting, e.g., *that Elvis was a musician*, I should express a proposition that literally has Elvis as one of its constituents. But presentism says that no such constituent as Elvis exists. Ergo, no such proposition exists. We may call this worry *the problem of singular propositions*. In

¹³⁹ See Fitch and Nelson (2009).

short: how can there be singular propositions concerning merely past individuals when these individuals are unavailable to serve as constituents?

That these three problems—the problems of proper names, singular predication, and singular propositions—are distinct can be easily shown. First, the problem of proper names is distinct from the problem of singular predication. For the problem of predication need not involve proper names at all. Imagine that, in wishing to predicate *being a musician* of Elvis, I assert *that the star of Jailhouse Rock was a musician*. Did I succeed in predicating? Intuitively, it seems that I did, for I seem no less able to predicate something of Elvis by using a singular description (e.g. “the star of Jailhouse Rock”) than by using his proper name. And in asserting *that the star of Jailhouse Rock was a musician* I seem able, in principle, to just as much have Elvis himself in mind as when asserting *that Elvis was a musician*. This shows, I think, that the problem of predication is not, fundamentally, a problem about proper names.

Next, the problem of predication is distinct from the problem of singular propositions. For imagine that I reject the idea that propositions ontologically depend on their constituents—i.e. imagine that I claim that a proposition can, at least in principle, survive the destruction of one of its concrete constituents. If so, then I may, in principle, believe that the singular proposition *that Elvis was a musician* can exist even after Elvis falls out of existence. In this case, I can hold, contra the problem of singular propositions, that presentism is compatible with the existence of many past-oriented singular propositions—yet, given the success of the problem of predication, I cannot hold

that presentism is compatible with their *truth*. For the mere existence of the singular proposition *that Elvis was a musician* has no power to undermine, on its own, the intuitive idea this proposition is predicative of Elvis, and it has no power to undermine, on its own, the idea that the truth of this proposition requires the existence of Elvis. In short, the objection from singular predication says that, on presentism, past-directed singularly-predicative propositions cannot be true, for there is no one of whom to predicate; the objection from singular propositions says that, on presentism, past-directed singular propositions cannot even exist in the first place.

Finally, the problem of proper names is distinct from the problem of singular propositions. And one reason for this is exactly analogous to the reason why the problem of singular propositions is distinct from the problem of singular predication, viz. the mere existence of the singular proposition *that Elvis was a musician* has no ability to undermine the idea that all names refer to their bearers. Therefore, even if one could show that the singular proposition *that Elvis was a musician* can outlive the destruction of Elvis, this would seemingly do nothing to undermine the idea that ‘Elvis’ should refer to Elvis.

4.2 The Problem of Proper Names

Of our three problems for presentism, this one is, I think, most easily answered.

According to the objection, it is a kind of trivial truth that all names refer to their bearers.

Yet this cannot be correct, for some names are *empty*—they fail to refer to anything. The

French Mathematician Jean Joseph Le Verrier once believed there to be an inner planet

orbiting between Mercury and the Sun. He named this hypothetical planet ‘Vulcan’. But Le Verrier was mistaken, and there is no such planet—‘Vulcan’ is an empty name.¹⁴⁰

Presentists believe that ‘Socrates’ is an empty name like ‘Vulcan’ but with one difference: whereas ‘Vulcan’ has always been empty, ‘Socrates’ did once refer but does no longer.¹⁴¹

The principle that all names refer to their bearers perhaps has an attractive simplicity yet it admits of such counterexamples as hypothetical empty names (e.g. ‘Vulcan’) as well as fictional and mythological empty names (e.g. ‘Santa Claus’, ‘Sherlock Holmes’, ‘Pegasus’).

But perhaps this response is too fast. First, it is possible for there to be theories of fictional or hypothetical names on which such names are non-empty but where they refer to abstract rather than concrete objects. For example, Van Inwagen (1977) defends a view whereby fictional names such as ‘Sherlock Holmes’ refer to abstract objects. But even by the lights of such a view, it is difficult to know what to say about the referent of ‘Socrates’ given presentism. For if ‘Socrates’ once referred to Socrates, did it then, on

¹⁴⁰ Le Verrier proposed Vulcan in order to explain Mercury’s peculiar orbit around the Sun, an orbit that was otherwise mysterious given the best space-time theory of the day (Newtonian mechanics) plus the influences of the known planets. When Mercury’s peculiar orbit was later explained by Einstein’s theory of general relativity, it was by then clear that there was no such planet Vulcan. Those well-read on the philosophy of names know that poor Le Verrier is often used as an example of someone who created an empty name, a name that he sincerely thought to be non-empty. Yet Le Verrier fans should rejoice at one of his great achievements: he was partially responsible for the discovery of Neptune.

¹⁴¹ It’s not quite right that, even by presentist lights, ‘Socrates’ once referred to Socrates. For in Socrates’s day, he was known by his Greek name and not by ‘Socrates’. It is unclear whether someone who, for some reason, uttered the name ‘Socrates’ in ancient Greek times would have referred to anyone at all. I ignore this complication, since, obviously we could substitute ‘Elvis’ or any other English name in the example.

the abstracta theory, begin to refer to an abstract version of Socrates?¹⁴² It is unclear what the abstracta view should say here.

Second, and, I think, more pressingly, the objection from proper names can simply be recast as an objection concerning non-fictional and non-hypothetical names. For surely, the proper names objector might argue, the following principle is a kind of trivial truth about names:

(Names) Given any non-fictional, non-hypothetical name, *N*, '*N*' refers to its bearer.

Since Names is immune to counterexample by fictional or hypothetical names, it therefore causes trouble for presentists.

I think the presentist has a strong response. And the response should be a familiar one, for it mirrors what I previously said about the grounding objection. In particular, I think the presentist should observe that Names is ambiguous, for him, between two readings:

(E-Names) Given any non-fictional, non-hypothetical name, *N*, '*N*' refers to its **existing** bearer.

(P-Names) Given any non-fictional, non-hypothetical name, *N*, '*N*' referred to its bearer, or '*N*' refers to its bearer, or '*N*' will refer to its bearer.

Which of these two disambiguated principles—short for *Eternalist Names* and *Presentist Names*, respectively—one should accept depends on one's epistemic position. From the

¹⁴² If this is a path that the abstracta theorist wishes to go down, it would seem much better for the abstracta view to claim that 'Socrates' began to refer to an abstract proxy for Socrates rather than to claim that 'Socrates' always refers to Socrates but that, after his death, Socrates becomes an abstract object. It is so very strange to think that a concrete person could turn into an abstract object.

eternalist's epistemic position, these principles are mutually entailing, for if '*N*' referred, refers, or will refer to something, then surely '*N*' succeeds in referring to some object within the tenseless, four-dimensional block (and vice versa). But from the presentist's epistemic position, these principles are importantly distinct, for given that the whole of temporal reality contains only present things, then it seems all too obvious that some names (e.g. 'Elvis', 'Socrates', etc.) fail to attach to anything in reality as a whole, yet they once did, or they will yet.

After distinguishing these principles, it becomes clear that for the problem of proper names to have force against presentism, there must be some non-question begging reason—some reason that does not simply assume the eternalist's epistemic position—why E-Names *and* P-Names are true rather than P-Names alone. Yet I am not sure what such a reason would be. And unless one is forthcoming, presentists are justified in answering the problem of proper names by rejecting E-Names in favor of P-Names.

4.3 The Problem of Singular Predication

One way of putting the problem of singular predication is this: insofar as a range of commonplace truths seem to predicate of merely past things, we have a *prima facie* ontological commitment to such things. Put in this way, the presentist's task is to show how he may discharge this *prima facie* commitment.

The presentist has an answer to the problem of predication, one that parallels the modal actualist's answer to (the modal version of) the same problem. Consider a true present-tense analogue of *that Socrates was a philosopher*, e.g. *that Kripke is a*

philosopher. True enough, this truth predicates something of Kripke, namely, *being a philosopher*. And *that Kripke is a philosopher* therefore involves ontological commitment to Kripke. But *that Socrates was a philosopher* is importantly different from *that Kripke is a philosopher*, for the former is past-tense and the latter is present-tense. The presentist claims that this difference in tense makes for a difference in ontological commitment, for the claim *that Socrates was a philosopher* is to be understood via the ontologically non-committing past-tense operator: WAS(*that Socrates is a philosopher*). For this reason, the presentist insists that the truth *that Socrates was a philosopher* need not commit us to Socrates.

The presentist's invoked slogan—"No ontological commitment within the scope of the tense operator"—may be motivated by analogy to the modal case. Consider:

(1) Aliens from Alpha Centauri might have built the pyramids in Egypt.

Modal actualists face an analogous semantic challenge with regard to (1). (Give (1) a metaphysical rather than epistemic reading.) For (1) appears to predicate of some (merely possible) Aliens from Alpha Centauri. Assuming that such Aliens do not actually exist, the actualist owes us an ontologically non-committing account of (1)'s truth. But the actualist has a straightforward answer. He holds that (1) is understood as employing a modal possibility operator and that any claim within the scope of this operator is read as non-committing. Thus, (1), on its true reading, is to be understood as (2). (\diamond is the possibility operator—" $\diamond p$ " is read "it is possible that p ".)

(2) \diamond (Aliens from Alpha Centauri built the pyramids in Egypt).¹⁴³

And so, despite appearances, (1) need not commit us to merely possible aliens.¹⁴⁴ “No ontological commitment within the scope of the possibility operator” is the actualist’s slogan here. Since the possibility operator operates on a proposition or a sentence, (1) need not be understood as predicating something of some aliens. Rather, it can be regarded as predicating something of the proposition *that Aliens from Alpha Centauri built the pyramids* (or of the sentence that expresses it), namely, the property of *being possibly true*.

The presentist answer to the problem of predication concerning non-present objects parallels the actualist answer to the problem of predication concerning non-actual objects. *That Socrates was a philosopher* need not be understood as predicating something of a non-present individual. Instead, it can be understood as predicating something of the proposition *that Socrates is a philosopher* (or of the sentence that expresses it)—namely, the property of having been true.

The presentist’s response has some attractive features. First, it is compatible with Commitment and Relation. On Commitment, if a claim, *P*, predicates *F* of *x*, then, necessarily, *P* is true only if *x* exists. But on the current proposal, the object of predication is a sentence or proposition about Socrates —viz. *that Socrates is a*

¹⁴³ See Szabó (2007).

¹⁴⁴ It might be objected that perhaps (1) is not the best example, since it sounds like a *de re* reading with respect to aliens. And so (2) looks to be a problematic regimentation of (1). But the choice of (1) is quite intentional, for it mirrors the claim *that Socrates was a philosopher* insofar as the latter also seems, at first blush, to be *de re* with respect to Socrates. Part of the challenge for presentism is to, in a sense, explain away the urge to treat *that Socrates was a philosopher* as inherently *de re* with respect to Socrates.

philosopher, or the sentence that expresses it—that is embedded within a tense operator and not Socrates himself. Therefore, so long as the proposition or sentence embedded within the past-tense operator exists, Commitment is not violated. And on Relation, if a claim, *P*, predicates *F* of *x*, then, necessarily, *P* is true only if there exists a predication relation that links *P* and *x*. But, again, so long as *that Socrates is a philosopher* (or the sentence that expresses it) exists, then nothing is to prevent this claim from standing in a predication relation to the property *having been true*.

Second, the presentist can readily explain why *that Socrates was a philosopher* appears to be predicative (or, *de re*) with respect to Socrates—viz. because it is built from a present-tense claim that *was* genuinely predicative of Socrates. Similarly, the actualist can explain why *that Aliens might have built the pyramids* appears to be predicative (or, *de re*) with respect to Aliens—viz. because it is built from a claim the *might have been* genuinely predicative with respect to some aliens. In short, we have a claim that was or might be true, and this very claim did stand or might have stood in a genuine predication relation to Socrates or to some aliens. In both cases, the appearance of a genuinely predicatively claim is to be explained by the fact that a genuinely predicative claim was or might have been true.

Two features of the presentist-actualist analogy deserve additional elaboration. First, the analogy isn't perfect as given. Whereas *that Socrates was a philosopher* employs a proper name, *that Aliens from Alpha Centauri might have built the pyramids* employs an indefinite description. This should not much bother the presentist. The

presentist's and actualist's ability to explain the truth of a claim absent undesired ontological commitments is what matters most here. Both do so by demonstrating that a certain (temporal or modal) operator introduces an opaque context; it shouldn't much matter whether the terms inside the scope of the operator are names or descriptions or whether they are singular or general. That said, we might concoct an example in the modal case that more closely parallels *that Socrates was a philosopher*. Imagine that a childless couple is discussing the alternate life that would've occurred had they had children. Suppose that this couple agrees that had they had a boy, they would have named him 'Fred'. Consider:

(3) Fred might have grown up to be a musician.

So long as we're able to fix the referent of 'Fred' (to a merely possible individual), (3) is an unproblematic truth and is open to the same treatment, on actualism, as the claim *that Aliens might have built the pyramids* and other analogous claims.¹⁴⁵

Second, I've intentionally taken care to state the problem of predication as a problem of ontological commitment rather than as a problem of quantification. This is because avoiding commitments to non-present or non-actual things may or may not involve avoiding quantification over entities, since some presentists and actualists treat their (temporal or modal) operators as quantifiers (over ersatz entities rather than ordinary

¹⁴⁵ On one sort of essentialism of origins thesis, no human individual could have originated from a sperm and egg other than the ones from which she actually originated. If this is right, we may not be able to fix the referent of 'Fred' without specifying some unique sperm and egg pair in advance. We might then imagine our hypothetical couple specifying that 'Fred' is to refer to the person who would have been born had *such and such* sperm and egg been joined.

entities); e.g. some presentists (actualists) will treat their temporal (modal) operators as quantifiers over abstract times (abstract worlds).

I now consider two objections to the presentist's account of singular predication.

4.3.1 The Objection from Logical Form

The first objection comes from Markosian (2004), who has argued that past-tense statements involving proper names have the sorts of truth conditions that prevent the presentist from treating those statements as literal truths. Markosian begins by asking a question: What are the truth conditions for "Socrates was a philosopher"? He gives two options:

(TC_g) "Socrates was a philosopher" is true iff $(\exists x)(x$ is the referent of 'Socrates' and WAS(x is a philosopher)).

(TC_s) "Socrates was a philosopher" is true iff WAS($\exists x)(x$ is the referent of 'Socrates' and x is a philosopher).

Markosian labels the first truth condition "g" for "grabby". The first truth condition is grabby since, metaphorically speaking, it tells us to grab the existing object referred to by 'Socrates' and see whether it used to be a philosopher. And he labels the second truth condition "s" for "searchy". The second truth-condition is searchy since, metaphorically speaking, it tells us to search the past for the philosopher referred to by 'Socrates'.

Markosian then argues that "Socrates was a philosopher", as normally used in English, has the (TC_g) truth condition.

Before we consider whether Markosian's interpretation of "Socrates was a philosopher" is correct, notice that it spells trouble for the presentist's response to the problem of singular predication. The reason is that if we take the grabby interpretation of "Socrates was a philosopher", we explicitly rule out the possibility of reading it opaquely. According to (TC_g), there must be an existing referent of 'Socrates' in order for "Socrates was a philosopher" to be true, and so the mere fact that "Socrates is a philosopher" was true cannot alone be sufficient to guarantee the truth of "Socrates was a philosopher". The presentist who holds that "Socrates was a philosopher" is normally literally true must therefore rule out the possibility that (TC_g) is normally the correct interpretation.

So what is the argument that, in fact, "Socrates was a philosopher" normally has (TC_g) as its truth condition? To make his case, Markosian contrasts "Socrates was a philosopher" with the grammatically equivalent sentence:

(4) Joe Montana was a quarterback.

What are the truth conditions for (4)? Markosian holds that, as normally used in English, (4) has the grabby truth condition:

(TC_{4g}) 'Joe Montana was a quarterback' is true iff $(\exists x)(x$ is the referent of 'Joe Montana' and WAS(x is a quarterback)).

Let us grant, for the sake of argument, that Markosian is right here. Suppose that when someone asserts (4) in normal circumstances, they are trying to say—concerning an existing person named 'Joe Montana'—that he used to be a quarterback. Markosian goes on to conclude that, by analogy, we should expect "Socrates was a philosopher" to have a

grabby truth condition as well. Indeed, he goes on to conclude that, normally, *all* grammatically equivalent sentences—ones with a name and a past-tense operator—have grabby truth conditions. But this is a leap. Why does it follow from the fact that, normally, English speakers use (4) in a grabby way that therefore *all* grammatically equivalent sentences are normally grabby as well? Such an inference assumes that grammatical form fixes logical form (and hence truth conditions). But *why* make this assumption?

Interestingly, Markosian agrees that the typical speaker would *not* interpret “Socrates was a philosopher” as grabby. He imagines a case where we poll a typical English speaker:

...ask her this question: “Do you think this sentence is true because there *is* a guy called ‘Socrates’ who was a philosopher, or do you think it is true because there *was* a guy called ‘Socrates’ who was a philosopher?” I’m willing to bet five dollars that, if you can get her to take this last question seriously, she will opt for the second alternative (the one that corresponds to (TC_s)). And what I think this shows is that, even though the correct truth condition for [“Socrates was a philosopher”] is (TC_g), the grabby truth condition, the average person on the street is likely to think (mistakenly) that the correct truth condition for [“Socrates was a philosopher”] is something like (TC_s), the searchy truth condition. (Markosian 2004: 72)

Assume that this is in fact how a typical English speaker would respond if polled. How is the typical speaker’s response here evidence that “Socrates was a philosopher” normally has the grabby truth condition? After all, that’s precisely *not* what she told us. Why be uncharitable to her? I suspect that Markosian is tacitly adopting a uniformity principle whereby all statements of grammatical form “*N* was a *G*” (where *N* is a proper name and *G* is a description) must, in normal circumstances, have the same logical form. Perhaps Markosian then concludes that since “Joe Montana was a quarterback” is clearly grabby, “Socrates was a philosopher” must be too.

I want to make two points about such a uniformity principle. First, it is suspicious. Do we have reason to accept it? Indeed, contrasting sentences such as “Socrates was a philosopher” and “Joe Montana was a quarterback” might be taken as evidence that such a principle is false, and Markosian’s own imagined case seems to support this. Second, even if we assume the truth of such a uniformity principle, why use it to conclude that “Socrates was a philosopher” normally has the grabby truth condition? Why not instead use the uniformity principle to conclude that since “Joe Montana was a quarterback” is searchy, then “Socrates was a philosopher” must be too? If we insist on uniformity of logical form for grammatically equivalent sentences, then it would make sense to use the more transparent sentences as guides to the logical forms of the less transparent sentences. But “Socrates was a philosopher” and “Joe Montana was a quarterback” seem equally transparent. So, it’s unclear, by Markosian’s example, why we should conclude that “Joe Montana was a quarterback” *reveals* the logical form of “Socrates was a philosopher” rather than vice versa.

But rather than accept any such uniformity principle, I suspect that we should probably instead conclude that statements of grammatical form “*N* was a *G*” do not wear their logical forms on their sleeves; the particular logical form of any such statement is not fixed by its grammatical form alone. Of course, if grammatically equivalent past-tense statements can differ in their logical forms, it would be nice to have some account of this difference. One such account may involve the conversational context, and, in particular, the implied mutual knowledge that exists within the conversational context.

Among the items of implied mutual knowledge, we may include an implied mutual knowledge that a certain individual (e.g. Joe Montana) exists (or is still alive). It seems at least possible that such implied mutual knowledge could affect the underlying logical form of a sentence uttered in a conversation.

4.3.2 The Objection from Speaker Intentions

The second objection to the presentist account of singular predication concerns a speaker's intentions in asserting *that Socrates was a philosopher*. According to the presentist, we need not understand this claim as predicating something of a past object. Rather, we can understand it as predicating something of the proposition *that Socrates is a philosopher* (or of the sentence that expresses it)—viz., the property of having been true.

But it might be objected that the presentist is offering us an implausible view of what a typical speaker is doing in asserting *that Socrates was a philosopher*. According to this objection, the typical, non-philosophical speaker, in asserting *that Socrates was a philosopher*, is clearly *not* intending to predicate something of a sentence or proposition. Rather, in so asserting, the typical speaker intends to predicate something *of Socrates*. It is sheer wishful thinking for the presentist to insist that since, on presentism, WAS(*that Socrates is a philosopher*) is the reading that comes out true, that therefore this is the reading that speakers have in mind when asserting *that Socrates was a philosopher*.

I am sympathetic toward this worry. I agree that it is implausible to assume that speakers typically take themselves, in asserting *that Socrates was a philosopher*, to have

said something about a sentence or a proposition, rather than a flesh-and-blood person. But perhaps, in answering the problem of singular predication, presentists need not commit to holding that speakers *intend* to predicate something of a sentence or proposition. Keep in mind that we have two readings of a given utterance of “Socrates was a philosopher”, one *de dicto* and one *de re* reading (corresponding to the searchy and grabby truth conditions, respectively):

(5) WAS(Socrates is a philosopher).

(6) Socrates is such that WAS(he is a philosopher).

Suppose, as I maintain, that we have no compelling reason to think that speakers, in uttering “Socrates was a philosopher”, typically intend to convey (5). It does not thereby follow that we have reason to believe that speakers, in uttering “Socrates was a philosopher”, typically *do intend* to convey (6). For this latter claim to follow, we would have to assume that speakers, when asserting a sentence of ambiguous logical form, typically have some particular disambiguation in mind. Do they? Why assume that the typical, non-philosophical speaker has *either* (5) or (6) in mind when uttering “Socrates was a philosopher”? Suppose that we poll a non-philosopher about his utterance. We might attempt to push him into a disambiguation by asking him the following:

You just uttered the sentence “Socrates was a philosopher.” Did you mean to say that it was the case that Socrates is a philosopher? Or did you mean to say that Socrates is such that it was the case the he is a philosopher?

I believe that it would be both reasonable and unsurprising for the speaker to answer by saying, “I don’t know. All I meant to say was that Socrates was a philosopher.” Suppose

that our hypothetical speaker says just that. Can presentists treat her utterance as true? I don't see why not. Since our hypothetical speaker said something of ambiguous logical form, and since what he said has (on presentism) both a true and a false reading—(5) and (6), respectively—then, *ceteris paribus*, it seems charitable to interpret her as having said something true. Since it is reasonable for presentists (and non-presentists) to be charitable to speakers, it is reasonable for presentists to treat typical utterances of “Socrates was a philosopher” as true.¹⁴⁶

Still, there may be a lingering sense that the presentist account is implausible in treating ordinary utterers of “Socrates was a philosopher” as in fact serving to make a genuine predication—even an *unintentional one*—of a sentence or a proposition rather than of a flesh-and-blood person. If so, then there may be a retreat position for presentists. They might choose to entirely abandon the claim that, in uttering “Socrates was a philosopher”, speakers are doing anything genuinely predicative at all. Rather, presentists could say that, in ordinary utterances of “Socrates was a philosopher”, it is justifiably charitable to treat them as true by regarding them as having the *de dicto* truth condition: WAS(Socrates is a philosopher). But in claiming that certain utterances may be assigned a charitable truth condition, perhaps presentists need not also commit to the claim that such utterances are predicative acts. This line of response therefore abandons the metalinguistic strategy of treating apparent predications as predications of linguistic

¹⁴⁶ Even if such charity were unjustified, it is not clear how bad this would be for the presentist. The presentist would be forced to say that utterance of “Socrates was a philosopher” are ambiguous between a true and a false reading and that there is nothing in normal usage to govern which reading is produced by typical speakers. This might be unpalatable to the presentist (who would rather treat normal assertions of such sentences as unambiguously true), but it might not be awful.

items rather than predications of merely past individuals. And this line therefore has a certain cost: it acknowledges that to the extent that utterances of “Socrates was a philosopher” intuitively seem predicative, presentists do not account for this intuition. But this response still accomplishes, I think, what any presentist account must: it treats utterances of “Socrates was a philosopher” as true.

4.4 The Problem of Singular Propositions

One more singularity problem remains: How can there be past-oriented singular propositions—e.g. the proposition *that Socrates was a philosopher*—in the absence of the merely past individuals they concern? We consider three possible lines of reply.

Although, as we will see, the lines of reply that I offer are insufficient to fully and decisively answer the problem, the final line of reply may at least point us in a hopeful direction.

First, we consider an answer to the problem that involves retaining singular propositions even when their constituents fall out of existence. We may begin with a view that Plantinga (1983) discusses and calls “existentialism”, a metaphysical package whereby: (i) every haecceity (i.e. essence or “thisnesses”) of an object ontologically depends upon that object—i.e. no haecceity exists uninstantiated; (ii) every singular proposition ontologically depends upon the individual it concerns—i.e. no singular proposition exists in absence of the concrete individual it is about. Plantinga himself rejects both theses of the existentialist package. The possibility of rejecting the second view in the package—call it *SP Dependence*—may give the presentist what he needs:

(SP Dependence) A singular proposition is ontologically dependent upon the individual it is directly about—e.g. *that Obama is president* is directly dependent upon Obama himself, and this proposition can only exist if Obama does.

By rejecting this form of ontological dependence, one can hold that the singular proposition *that Obama is president* can exist even if Obama does not. And similarly, by rejecting SP Dependence, the presentist can hold that the singular proposition *that Socrates was a philosopher* can exist even if Socrates does not—the proposition, so to speak, can “outlive” the man it is about.

The problem with rejecting SP Dependence is that it carries some unfortunate consequences. Consider the singular proposition *that Hume was a philosopher*. According to presentism, both this proposition as well as the proposition *that Socrates was a philosopher* have lost their respective concrete constituents. By rejecting SP Dependence, presentists can say that this loss is no bar to their (these propositions) continued existence. After Socrates and Hume fall out of existence, the propositions *that Socrates was a philosopher* and *that Hume was a philosopher* can be depicted, in bracket form, as the propositions *S* and *H*, respectively:

(*S*) <____, *having been a philosopher*>

(*H*) <____, *having been a philosopher*>

The bracket depiction reveals the inner structure of each proposition. In each case, the first blank position (“____”) serves to indicate that the relevant constituent—Socrates or Hume, respectively—is gone and hence that there is a “gap” in the singular proposition where there used to be a concrete person.

The problem is this: *S* and *H* are supposed to be two *numerically distinct* propositions. After all, *that Socrates was a philosopher* is not and cannot be the same proposition as the proposition *that Hume was a philosopher*—these propositions say different things, and they are about different people, after all. But given that *S* and *H* now have, on presentism, an identical inner structure—a gap, plus the property *having been a philosopher*—it is hard to see how *S* and *H* could be distinct: they are exact intrinsic duplicates. Of course, when Socrates was still alive, he was a constituent of *S*; when Hume was alive, he was a constituent of *H*. Therefore, at either such time, *S* was distinguishable from *H*. But now that both men are, by presentism, no more, it is hard to see what distinguishes these propositions.

We might respond that although *S* and *H* are intrinsic duplicates, they are not duplicates full stop, for they can be distinguished extrinsically—*S* but not *H* might be believed by someone who had heard of Socrates but not Hume. But this response is very unsatisfying. To say that proposition *P* could be believed even if proposition *Q* is not believed is a hallmark of individuation for propositions. Therefore, this response just takes for granted precisely what is so mysterious here—viz. that *S* is distinct from *H* and hence that someone could believe one but not the other. And this is mysterious precisely because *S* and *H* look intrinsically the same. And so one wishes to know: How could someone believe one but not the other given that they appear to be the same? How could these propositions represent different states of affairs while being intrinsically the same?

Another anti-SP Dependence response is that *S* and *H* can be distinct propositions despite their being intrinsic duplicates. After all, to charge that *S* and *H* cannot be distinct on the grounds of their same inner structure looks suspiciously like an appeal to the implausible half of Leibniz’s Law, the idea that if *x* and *y* share all properties in common, then *x* is numerically one and the same as *y*:

$$(BL) \quad \Box[\forall x\forall y\forall F (Fx \leftrightarrow Fy) \rightarrow (x = y)]$$

But we know that BL—aka “Bad Leibniz”, aka the principle of “The Identity of Indiscernibles”—is implausible: surely it is conceptually and metaphysically possible for there to be a “Max Black” world consisting entirely of two qualitatively identical iron spheres floating in space.¹⁴⁷ And if there can be distinct, qualitatively identical objects, then why not *S* and *H*?

The problem with this response is that while it is plausible that BL fails in the case of physical objects, BL looks highly plausible in the case of propositions as well as abstract objects generally. *S* and *H* are no iron spheres floating in physical space—they are abstract propositions. And it is just difficult to understand (let alone believe) the idea that there could be two abstract objects—in this case, propositions—that are intrinsic duplicates. Holding that some abstract objects are intrinsically the same yet numerically different would open the door, for example, to saying that there are two numbers, *n* and *m*, that are intrinsically the same yet $n \neq m$. It would also seem to open the door to saying that there are two uninstantiated color properties, *c* and *d*, that are intrinsically the same,

¹⁴⁷ See Black (1952).

yet $c \neq d$. This strikes me as quite strange.¹⁴⁸ In short, rejecting SP Dependence and holding that singular propositions can outlive their constituents is not a great option, and I think that presentists should be wary of it.

A second option for presentists is to reject the first component of existentialism—the component we may call *HC Dependence*—and allow that, when it comes to past-oriented propositions, haecceities go proxy for concrete individuals:

(HC Dependence) A haecceity is ontologically dependent upon the individual that it is a haecceity of—e.g. Obama’s haecceity is directly dependent upon Obama himself, and this haecceity can only exist if Obama does.

By rejecting HC Dependence, the presentist may hold that Socrates’s haecceity—a property that is his essence—can exist uninstantiated and so can outlive the man himself. We know that a haecceity is an individual essence, but what does that mean? The basic idea is this: let a haecceity for any object, O , be any property that O has essentially and that all other objects essentially lack—thus, O ’s haecceity is instantiated in every possible world (and at every possible time) where O exists and never instantiated otherwise.¹⁴⁹ By rejecting the dependence of a haecceity on its bearer, the presentist could say that past-oriented propositions are built from haecceities rather than concrete individuals:

(S^*) *<Socrateity, having been a philosopher>*

¹⁴⁸ Of course, one who believes in distinct propositions that are intrinsic duplicates need not believe in numbers or color properties that are such. But the point is that, in rejecting SP Dependence, one leaves little room for a principled objection to such views.

¹⁴⁹ We technically leave it open whether an object can have more than one haecceity. On haecceities, see, e.g., Plantinga (1974: 70-77).

Thus, S^* is a proposition that represents *that Socrates was a philosopher*, and it singularly concerns Socrates not in virtue of having the man himself as a constituent, but rather by having his essence—*Socrateity*—as a constituent.¹⁵⁰

The problem with the haecceity proxy strategy is that it commits us to a vast multitude of uninstantiated essences, properties that platonically float free of the things that instantiate them. This multitude may be vast indeed. It may include, I think, not just the haecceities of all things that did, do, and will exist, but also all of the haecceities of anything that might have existed. Why so? Consider the proposition *that Socrates does not exist*. It seems natural to say that, given the falsity of HC Dependence and the supremacy of the haecceity view, this proposition would exist and be true were Socrates never to have had existed. And, moreover, this proposition would have Socrates's uninstantiated haecceity as a constituent, just as *that Socrates was a philosopher* does on presentism. But if so, then by parity of reasoning, there should exist, at the actual world, a multitude of uninstantiated haecceities for merely possible objects. Opinions may differ on the undesirability of uninstantiated haecceities. And while I offer no particular argument against the haecceity proxy strategy, I do not endorse it or pursue it further.

A third option for presentists is to jettison the idea that there are past-oriented singular propositions. On this view, it is true that Socrates was a philosopher in some

¹⁵⁰ To be sure, if a singular proposition is simply defined upfront as one that is about some individual in virtue of having that individual as direct constituent, then S^* is no singular proposition. Someone who adopts the haecceity proxy strategy therefore might say one of two things. First, they might say that S^* , though not technically a singular proposition, is a very good substitute for one—it can do anything you would ever ask of the real singular proposition, S , itself. Second, a fan of haecceities could simply adopt their own idiosyncratic definition of singular propositions, one whereby a singular proposition is about an individual in virtue of having that individual's haecceity as direct constituent. On this strategy, *all* singular propositions have haecceities—rather than concrete individuals—as constituents.

significant sense—e.g. “Socrates was a philosopher” is a true sentence—yet this is no thanks to any singular proposition involving Socrates, for there is none. I find this view attractive, but some may find it strange at first glance. I will elaborate the view and explain what motivates it, though fully defending this view is a significant task and, ultimately, one that will need to be left for another time. In the end, we will be left with a promising direction for presentists to explore when it comes to answering the problem of singular propositions, though not, admittedly, any decisive answer to the problem.

First, eschewing past-oriented singular propositions while maintaining that it is true, even on presentism, that Socrates was a philosopher seems strange on a certain orthodox picture of propositions. According to the orthodox picture, propositions are abstract, structured, intrinsically-representational entities that serve as the fundamental bearers of truth, objects of attitudes, and meanings of sentences.¹⁵¹ (Singular propositions, are but one kind of structured proposition on this conception.) By this conception, the sentence “Kripke is a philosopher” manages to be true because it expresses a true structured proposition whose structure may be represented as follows: <Kripke, *being a philosopher*>. Crucially, the proposition *that Kripke is a philosopher* is, on the orthodox conception, an intrinsically-representational thing—it inherently represents the world as being a certain way just in virtue of being the proposition that it is, and not in virtue of anything else. We may ask what other vehicles of truth there are besides propositions, and, even on the orthodox conception, there may be some—e.g.

¹⁵¹ See McGrath (2008) and, for a classic treatment of propositions generally, Cartwright (1962).

sentence types, sentence tokens, utterances, etc. But these other truth-bearers are all *derivative* truth-bearers—they achieve their representational capacities and hence their truth values in virtue of being related to (in virtue of expressing) intrinsically-representational propositions. Since it is, fundamentally, abstract propositions that bestow representational power, it is counterintuitive to think that there could be truths absent true propositions.

But the orthodox conception of structured propositions is plagued by a conundrum, one that may be weighty enough to overturn the whole enterprise. Following others, we may label this conundrum *the problem of the unity of the proposition*. The problem is this: how is it that any structured proposition is a representational unity constituted by its various parts? The structured proposition *that Obama is president* has two constituents, viz. Obama and the property *being president*. But how is it that these two constituents are held together such that this proposition is a *single entity* that represents its being the case that Obama is president? What sort of “metaphysical glue” could possibly bind these disparate constituents and turn them into an intrinsically-representational entity? Since there is, in reality, no such “metaphysical glue”, the idea that Obama and the property *being president* somehow combine to form a representational unity is mysterious, as though their unity occurs by magic.¹⁵²

The unity problem is perhaps even more pronounced in following kind of case. Consider the true proposition *that the Taipei 101 is taller than The Eiffel Tower*—this

¹⁵² The unity problem is discussed at least as far back as Frege (1892) and Russell (1903). The problem has seen revived interest—for recent discussion, see Jubien (2001), King (2007), and Soames (2010).

proposition is importantly distinct from the false proposition *that the Eiffel Tower is taller than the Taipei 101*. But why are these propositions—each the simple conglomerations of the same three entities on the structured conception—distinct? Of course, we can *depict* them as distinct if we declare that the given order within the brackets matters, e.g. <Taipei 101, *taller than*, Eiffel Tower > vs. <Eiffel Tower, *taller than*, Taipei 101>. But this imposition of order is a purely human construct—it is something imposed top-down via depictive interpretation. When it comes to the structured propositions themselves, they are each constituted by the very same three things and nothing more: the Eiffel Tower, the Taipei 101, and the *taller than* relation. So how is that these constituents are, in each case, “glued together in the right order” such that one proposition is true and the other false? Again: mystery.

This problem has led some—including, for example, Jubien (2001), King (2007) and Soames (2010)—to abandon the orthodox view of structured propositions and to offer alternative accounts of how it is that our beliefs and our utterances can represent and be true or false. The views of Jubien, King, and Soames differ in various crucial respects, yet all depart from the idea that there are intrinsically-representational structured unities and that these very unities are the founts of meaning. All of this may be, in a sense, good news for presentists. For unless there is a good solution to the problem of unity, then it is a mystery how the singular proposition *that Socrates was a philosopher* could exist (let alone be true) *irrespective* of whether one is a presentist or not. And so presentists may

have independent motivation to eschew singular propositions (let alone past-oriented ones).

Of course, the insolubility of the unity problem does not by itself preclude there from being propositions. Perhaps propositions are, contra the structured view, intrinsically-representational abstract simples (they lack parts). Or perhaps propositions *are* conglomerations of disparate entities, yet they are not unified by anything intrinsic to the propositions themselves but rather by the interpretations we place upon them. This latter path—treating propositions as extrinsically-representational entities that depend for their representational capacities on human cognitive acts¹⁵³—is quite promising for presentists. For if cognitive acts—and not inherently-representational abstract objects—are the founts of meaning, then there is seemingly no ontological hurdle to prevent “Socrates was a philosopher” from being a true sentence or to prevent my utterance of this sentence from being a true utterance; representation would originate in cognitive acts, not in propositions. True enough, even if representational capacities are extrinsic to propositions, it is still an open question whether the proposition *that Socrates is a philosopher* exists and whether this proposition is a structured entity. But, in this case, the nonexistence of Socrates would pose less (if any) threat to presentism, for there could still be plenty of non-propositional truth-bearers—e.g. sentence types, sentence tokens, utterances—that truly represent that Socrates was a philosopher.

¹⁵³ A view along these lines is defended by Soames (2010).

To summarize, I have argued that the problem of propositional unity threatens to undermine the problem of singular propositions. So long as friends of singular propositions have no good story to tell about the unity of the proposition, foes of presentism are in no position to blame presentists for not having the ontological resources to support singular propositions—by the lights of the unity problem, neither do the foes. This may give presentists temporary reprieve, though, ultimately they must offer a theory of truth that can deliver all of the goods, including (but not limited to) truths about such merely past individuals as Socrates.

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